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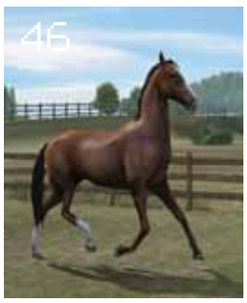

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ALPHA

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Being Ken Levine

BioShock series lead Ken Levine talks to Develop about his work on the franchise, Irrational's studio culture, and being an iconic developer, p6

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EDITORIAL

NEW YEAR, NEW YOU

DON'T LET the headline worry you. We're not here to force diets, fitness regimes and fashion tips upon you.

However, with the doom and gloom of January just about behind us, it's time for optimism, and maybe even a new career. This issue is packed with advice on finding a new job, securing a promotion – and for those of you in managerial roles – tips on motivating and retaining your staff.

On page 18 a huge six-page feature brings you 128 pieces of advice from dozens of the industry's best, covering CV writing, interview technique, pitching, portfolios, disciplines, recommended reading and even guidance on setting up your own studio. If you're tempted to make a move on furthering your career this year it really is essential reading.

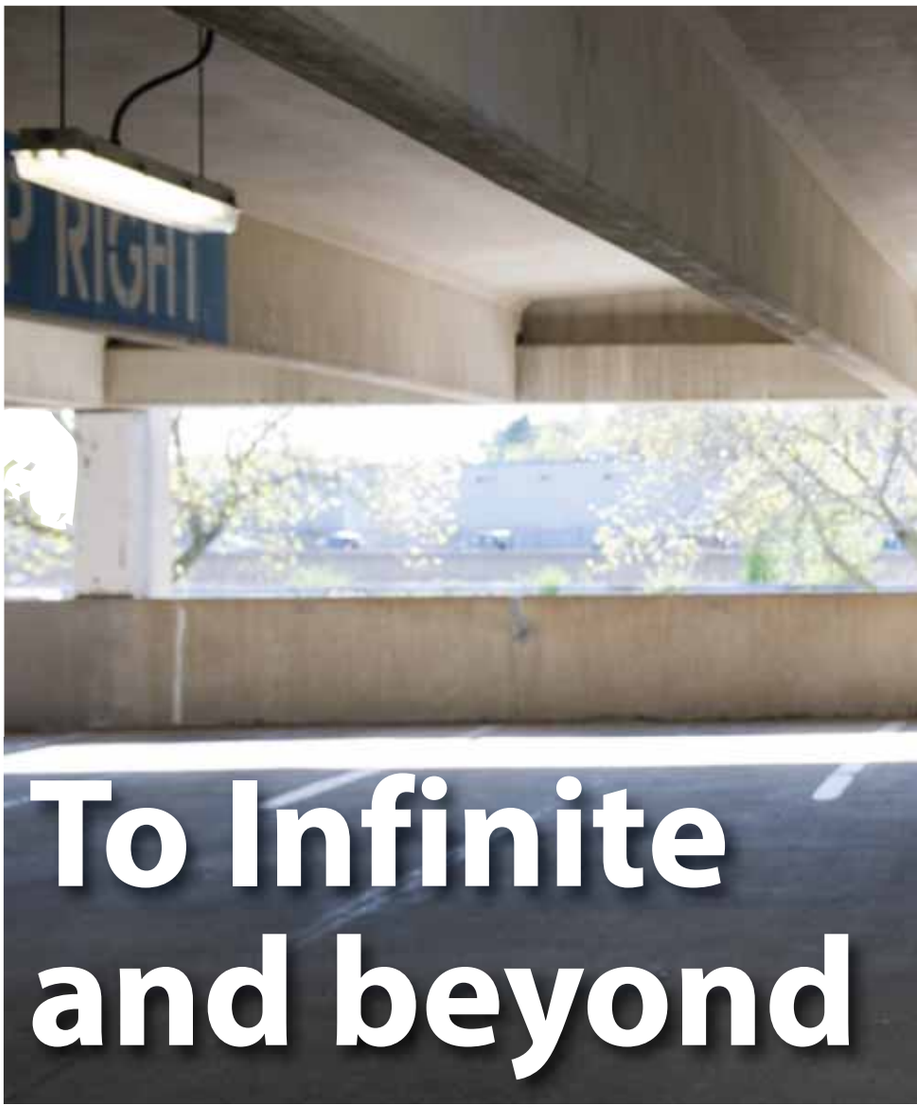
Following that there's the results of our annual salary survey, which pools data from the hundreds – and so nearly thousands – of industry professionals who told us about their employment. Sadly, it points to a depressing disparity between male and female wages that should have long ago been consigned to the past, but it's filled with heaps of fascinating information that will help you give perspective on your own wage – and take a nose at other people's.

Elsewhere in this issue there's a peak behind the doors of Ubisoft's creatively risky Montpellier studio, an in-depth investigation of the UK's Cambridge games development hub, and a look at the potential of a new wave of free-to-play games.

Perhaps the most fascinating piece, however, looks at an academic computer named Angelina, that can develop games itself using AI. It's a remarkable and slightly unsettling glimpse of the future where mere humans might not be needed for games development.

Oh, and I lied. There *are* some fashion tips.

Will Freeman
will.freeman@intentmedia.co.uk



To Infinite and beyond

It's been a long wait for BioShock Infinite, but with 2012 upon us its release is drawing close. **Michael French** caught up with series lead Ken Levine, to find out his hopes for the game and beyond

By the time *BioShock Infinite* is released it will have been five years since the last game in the series came out, and far longer since you started. What's changed for you over that time, having personally overseen one game series?
Over that time we've had to reimagine the company a little. We were originally working with the Australian team, and since then we've had to build up a much larger team. We've quadrupled the size of the studio in Boston and so we had to build a new office space and hire a lot of people.

We're not a company that can hire a lot of people very quickly. We can't just hire 400 people at once, because you're going to get very mediocre people if you do that. It took us a long time to build up the team. That's one of the primary reasons our work on *BioShock* has taken so long. But also, our process at Irrational is really organic and slow. We're like the slow food movement of games because we made a lot of mistakes, I think; I don't know what better way to put it.

We did six months of prototyping on a product that we sort of abandoned. It still lives on and we used the assets from it in the game. But it all takes us a long time.

Originally we had an idea for this city in the sky and for a long time it looked a lot like Rapture. It was like dark clouds and purples and originally the conflict in the city was between technowadice and luddites. Lead characters Booker and Elizabeth didn't exist.

It's the same with the first release of *BioShock*. If you go back in the history of the game, it was set on a tropical island for a long time with former Nazis in a modern day setting and you played the role of a cult de-programmer character.

I think that's OK; it's a very natural way to work. Fortunately, the team and I are allowed to experiment, and the company is behind that. Not everybody has that luxury so we try to leverage what we have the best we can.

How did you earn that kind of luxury? Is it the success of the first *BioShock* that affords you the time you need from Take-Two?
I can't speak for Take-Two. They write the cheques and that's great. No one comes in and hits me on the head with a frying pan and says 'what the hell are you doing?' The company in general understands that we're not generally planning to annualise these franchises. You could do that, there is

Ken Levine (left) believes it is important for the player to feel trusted, and to allow them to stumble across moments in a game, rather than force them through cutscenes

certainly a way to do that, and people can do that well, it's just not how it works for us. I think that's the culture at the company, it's a little more figuring out and making sure we deliver something that's really, really good at the end of the day.

So why doesn't Irrational go with the annualised method?
Obviously you look at *Call of Duty* go from one developer to another and they're honing their craft and they're really good at that, but with each *BioShock* we want to pop the stack completely and really start again.

I think even when we announced *Infinite* we still had that challenge, in that people were saying 'Wait, what are you guys doing? I don't understand.' Even we didn't understand for a while.

We had to figure out exactly what it was, and it was so interesting when we announced the game a year-and-a-half ago in New York.

The first event we did had people really scratching their heads over it. But by the time we got to Gamescom people had had enough time with it where they began just looking at it and getting really excited, so their reaction was so different.

The money guys at the company are wise enough to understand that's the better way to make a product for us because that's our skill set.

If you get a chance to play these annualised franchises – the *Assassin's Creeds* and the *Call of Dutys* – what's your take on them?
I hate those people that say 'I think everyone should make games the way I make them because I know the secret.' Seriously, fuck those guys. There's room for everything out there. There's room for annualised franchises that continue to polish the gem. There's room for people who pop the stack and really try and change things every time; the Rockstars and the Irrationals. I'm not comparing the quality of those two groups.

> ***"I hate people that say 'I think everyone should make games the way I make them because I know the secret.' Fuck those guys."***
>
> Ken Levine, Irrational

I say if they can do it and deliver quality, which I think they do, that's great. I think the thing that made *BioShock* work to a large degree was the game's environment and the experience of seeing something new. But If you were to keep going back to that place, you lose so much of that. I don't think we had much choice, creatively.

Does it ever worry you in that you have in mind the emotions a player will feel, and if a player messes about and does contrary things, they won't experience the game the way you want them to?
Yes, but look, I think you have to put trust in the player and I think the player generally rewards the trust you give them. Somebody once asked me about the scene in the first *BioShock* where you see the Big Daddy come down and drill that guy against the wall. They said 'What if I didn't look at it?'. Well, I think that people generally do look closely, and it's our job to draw the eye as much as we can.

We understand that people may not be paying attention and we have a lot of systems in *Infinite* for dealing with that – content that, if it doesn't play in one sequence, it's always waiting for another opportunity to play again.

We can see that multiple times in a level and the player might not be paying attention the first time or be in a position to see it, perhaps because of a gunfight.

There's all this opportunistic stuff that happens in our AI, but at the end of the day I think that players appreciate being trusted and they feel like 'I caught that'. It's almost better if they catch it out of the corner of their eye and turn to see it rather than the game locks up and a movie starts running. But it's hard to tell a story that way. We spend a lot of our time saying 'Oh my god, how the hell are we going to get this across? How are we going make this so the player can't break this but we still give them freedom?' I think that at the end of the day, the player feels trusted and that's important.

Moving on, what about the media attention and the status of being 'Ken Levine'. You've become one of the more iconic developers. Are you conscious of that stuff, or do you try to ignore it? We interviewed Cliff Bleszinski and he's really conscious of it and knows he can use his superstar status to inspire other people to do the same thing.
I'm a friend of Cliff's, I like Cliff. He's a much more social guy than I am and he really loves being in that space. I'm much more of a home body. I go to work and I go home and spend time with my wife. That's what I do, whilst Cliff is always jetting around all over the world.

So we're different guys in that regard. What's helpful to me is that I can get out there and talk about my work and the team's work in a way where people are interested in hearing about it, so you have some credibility coming in.

I'm very fortunate to be able to do that because that allows me to talk about what we're doing more easily.

I guess I don't think about a lot of stuff. It's very gratifying to meet fans and it's charming when somebody recognises you on the street because it's not like a situation where you're like Beyoncé and you can't even go out to dinner.

It's very charming when it happens and it's very flattering. The fact that people like what I do and what the team does is just very nice, but when you go back to the office the thing you have to do is remember that you have to

Ken Levine says work on Bioshock Infinite has taken a long time to build because the studio always looks to add quality staff, not just hire in bulk

prove yourself every time. I look at everything I write and everything the team does with the eyes of someone who has their hand on their wallet and going 'Hmm, sixty bucks, huh?' That's a tough audience.

A bunch of journalists at E3, that's a tough audience. They're not my parents; they've no reason to be rooting for us. So you can't let the fame go to your head because that's how you become irrelevant. You start believing you can do no wrong.

What would you say to a young game developer looking to carve out a niche?
The best advice I can give is be willing to do anything. Come in and say 'What can I do?' That's how I started when I got to Looking Glass. I'd be there and hang out all the time until one in the morning. Just asking 'is anyone doing something cool, can I get involved in it somehow?'

You have to be incredibly hungry if you're going to be successful in this industry. Making any game, the odds are stacked against you. It has to be great, it has to sell really well, it has to make big profit and it has to affect people's lives. The odds of that happening are always remote.

Are the pressures of commercial success ones you've put on yourself, or is it the tension of knowing there is a publisher waiting for your work to pay off?
The way I deal with that is that I don't really think of the specifics. I just try to be the audience all the time. I'll watch a level, like the E3 demo for example, and I will sit there as the audience and even when it's in very rough shape very early on, I have to envision, as the creative director, I have to see things and where they are going and consider, as an audience member, am I going to like that? I have to pretend I have no reason to like it. I really just position myself as a gamer playing the thing, thinking 'is this going to be good? Do I have any reason why I want to go around the next corner?' And that's what I do and really how I deal with it.

> ***"You have to be incredibly hungry if you're going to be successful. Making any game, the odds are stacked against you."***
>
> Ken Levine, Irrational

Tablet devices and smartphones are now prevalent everywhere. What's your take on making smaller games for these devices?
Well, the industry changes. Almost all the successful console developers started off developing small PC games, whether it's Valve, Bioware or Bethesda. We took over that space, and I think we've come to own it. The kind of games that I was making when I started, the mid-range budget PC games, don't really exist anymore. Low budget games do along with iPhone and super high end games, so you have to be mindful of that.

But on the other hand, some ideas express themselves as big sixty dollar console games and some ideas express themselves as flipping some birds. There may be ideas that we have which express themselves that way, but at the end of the day it's always about what's the idea and what's the best expression of that.

The third question you have to ask yourself is, if I'm taking someone's money to make this, can I look them in the eye and say I think you're going make your money back on this because I take that very seriously?

Would you ever make a mobile game? Do you have the time?
Not right now – I don't really have the time to. We're working on a Vita game and fortunately we don't have a 'this has to come out tomorrow' pressure on that. We're very open ended on that; it'll be out when it's ready to be released.

We've been kicking that idea around for a long time so it's had some time in the cooker. That was an idea that expressed itself really well on a mobile platform where I don't think *BioShock Infinite* necessarily is that game.

But look, you have to be mindful of these things because maybe in a few years there won't be this kind of platform. Then you'll find a new way to express yourself just like we did before with going from mid-range PC titles to what we're doing now.

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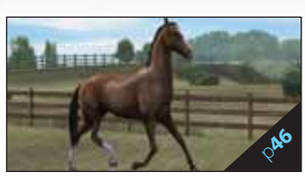

THIS MONTH: A glance inside the *Rayman Origins* studio **NaturalMotion Games' free-to-play future** A look at Hansoft 6.7

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//COMMENT: BUSINESS

Gambling with gameplay

by **Nick Gibson**, Games Investor Consulting

The $30 Gachapon 'lucky dip machine' in MapleStory takes the game particularly close to the remit of intricate gambling laws

YOU'VE TAKEN down the level 12 Gundark and that familiar fluorescent green light emits from its corpse indicating the presence of special loot. What will it be? Another lightly enhanced trinket to be sold for a pittance ASAP or something genuinely special that will accelerate your progress in the game?

In gameplay terms, chance has always been a critical part of many games' appeal, whether determining loot drops, influencing the spread of your M416 shots or deciding deck placement in solitaire. However, chance has also become a tempting and particularly lucrative opportunity for microtransaction games; a trend that can move a game uncomfortably close to gambling, attracting the attentions of authorities in Asia and raising the potential of problems in the west too.

THE UNHOLY TRINITY

Gambling is broadly defined as the presence of the 'unholy trinity' of consideration (i.e. payment to participate), chance (as opposed to skill in determining an outcome) and reward (payments to the winner). Different countries have different and various definitions of this but in broad terms they are largely similar.

The presence of just one or even two of these usually allows a company to avoid gambling legislation. Thus, *Zynga Poker* is acceptable in the US and EU as it comprises consideration and chance but not cashing out. It is also why skill games, in which players wager on their ability, remain broadly legal, as the games' outcome is demonstrably determined by skill and not chance.

Things become more complex with games that feature tradable virtual goods. Many MMOGs have authorised secondary markets for their virtual goods – exchanges where players can trade their unwanted virtual items with other players. Some prevent cashing out, keeping the exchange currencies virtual. Others allow users to sell their items for real money and thus provide them with tangible rewards. Given that these items may come from random loot drops in games with payment barriers – pay-to-play, microtransaction or subscription – this would appear to make them forms of gambling.

> ***"Chance has become a particularly lucrative opportunity for microtransaction games; a trend that can move a game uncomfortably close to gambling."***

In many parts of Asia, including MMO powerhouses China and South Korea, real-money secondary markets for virtual goods are either heavily restricted or outright illegal as they are deemed to constitute or promote gambling. This will prove problematic for titles such as the forthcoming *Diablo III*, which tightly integrates a secondary trading platform into the game, a trend that we believe other titles may well follow.

A more overt form of gambling in games is where players pay – via a premium virtual currency – to directly access random item features such as treasure chests or virtual item slot machines. This has become one of the most lucrative tricks in the microtransaction commercialisation handbook, and is a common feature of many Asian MMOs in the west (such as *MapleStory's* best-selling $30 Gachapon lucky dip machine ticket pack) and numerous social network games (such as *FarmVille's* Mystery Boxes).

Even without a cashing out element, it is still a highly compelling mechanism for players seeking rare or high value items for a limited outlay and undoubtedly taps into players' gambling proclivities. For this reason, both the Chinese and South Korean authorities, who take a stern view about gambling and games addiction, have indicated their intention to take action against online games companies that employ such systems.

ON THE CARDS

To date there has been limited scrutiny of such practices in the west by governments and the courts. This is true even of the category of gaming that is possibly closest to gambling: trading card games. Trading card games comprise consideration (paying for a real or virtual pack) and chance (the cards in each pack are allocated randomly). Left at that, the game is unequivocally legal.

However, many games services allow and actively encourage their cards to be traded. While some of this trading is done with virtual currencies only in closed secondary markets, not all of it is, and some allow cashing out, in a process that clearly constitutes reward and thus theoretically completes the unholy trinity. However, a tiny number of legal attempts to establish trading card games as a form of gambling have failed in the US. Primarily, it seems, that's because of the indirect way in which the three conditions are linked, unlike in a poker game, for instance, where all three are part of, and key to, the same process.

So if trading card games are not considered gambling, then surely games with chance-based microtransaction features are safe in the west?

Possibly. The collectible card game market is relatively tiny and would fall below the radar of most investigators' interest. The MMO, social network games and broader microtransaction games market is substantially bigger, growing much faster and reaching a significantly broader audience that increasingly includes children. We believe that at some point these industry practices will be tested more rigorously and we would not want to bet on the outcome.

Nick Gibson is a director at Games Investor Consulting, providing research, strategy consulting and corporate finance services to the games, media and finance industries.
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//COMMENT: DESIGN

Kids and Call of Duty

by **David Braben**, Frontier Developments

Is the current game age rating system suitable for the game worlds offered by the likes of Modern Warfare 3 (above) and Skyrim (inset)?

I'M SURE WE have all seen it or heard about it; kids of 12 or so – or even primary school ages - playing *Call of Duty: Modern Warfare 3*.

Despite the obvious violation of the 18 rating, the real difficulty we have with this is a complex one. Peer pressure at school means the kids want to play it, and the parents tend to cave in to their children's demands – perhaps because those parents are comfortable with their kids watching the numerous war films on TV during the day at weekends (mostly rated PG or U) as they did at a similar age, where we see large numbers of soldiers gunned down throughout, and frankly a pretty casual attitude to death.

Many perhaps feel the *CoD* games are no worse, and the fact they are playing socially with their school friends (from which they would otherwise be excluded if the parent prevents them from playing), tips the balance.

THE DRAGON HAS LANDED

I have just started playing the excellent *Skyrim*. At time of writing I am perhaps five hours into what I suspect is a 100-hour-plus epic, but again it is unclear to me why it got a rating as high as 15. Yes, there is blood, swordplay, frightening beasts and death, but I have seen all of those things in PG-rated films. It is the same with *Fable* and many others.

Red Dead Redemption is another one – again a game with strong daytime TV parallels, and another one where the player cannot resist collecting flowers, even though the gameplay benefit is minimal. I suspect the issue is one that it is possible to hog-tie people and the nature of some of the storylines is pretty seedy. But does it really justify an '18'? In *Fallout 3* – also an '18' – OK, people can be sold into slavery, but this is the case in many PG films (and in *Elite*).

> ***If a game is going to get an 18 rating anyway, then there is little commercial pressure not to include elements that I personally think are unacceptable.***

Now, the easy response for those in our industry, whenever a red-topped paper blames us once again for all the world's ills, is to point out the rating on the game, and blame the parents for letting them play it. But do we really agree with blanket ratings?

The nub of the issue I think, is the presumption that because the player is controlling what happens, this means it must have a much higher rating than if it is purely a passive experience.

Nevertheless, there is an argument the other way, too. If you are in control you can play the game the way you like. If you can be the hero, you can behave honourably.

GREAT EXPECTATIONS

It is all about expectation. Currently it is clear our ratings are not being taken seriously. Parental expectations are based on games they have seen before with a similar rating. Parents themselves may have played through games like *Fable* (a 15) or even *Red Dead Redemption* (an 18) and found it fine for their 12 year old, so will assume other similarly rated games are also OK.

The trouble here is that there is no 'headroom' for when a game should get a genuine '18' rating.

If a game is going to get an '18' rating anyway, then there is little commercial pressure not to include elements that I personally think are unacceptable, like the airport massacre in *Modern Warfare 2*.

David Braben is the founder of Frontier Developments. Best known as the co-creator of *Elite*, Braben has contributed to a number of other projects including *Frontier: Elite II*, *Thrillville*, *LostWinds* and *Kinectimals*. **www.frontier.co.uk**

//COMMENT: STUDIO MANAGEMENT

Career Opportunities

by **Tim Heaton**, The Creative Assembly

The secrecy surrounding The Creative Assembly's Alien project has somewhat hindered its efforts in recruiting talent to work on the console-bound title

RECRUITING into a games team in the UK is pretty challenging at the moment. There are a series of hurdles for us to overcome, and we seem to have erected some of those ourselves.

We're in the privileged position of recruiting into both of our teams, *Total War* and 'the secret *Alien* IP one' (which is primarily on console). Finding talented people for the *Total War* team is probably more straightforward – people know the game and its heritage, and we have an established structure with very specific demands and positions to fill. The written test that we give designers still makes me feel totally inadequate.

ANOTHER WORLD

With the console team, it's very different. For a long time we weren't able to even mention the IP. We weren't able to say anything. How do you attract people to come in for an interview when you can't communicate how exciting the opportunity is?

Blogs and the press aren't interested in writing a news piece saying 'CA are making a game. Yes, a game. More news soonish'. Eventually we convinced our partners to let us say something, and we had an enjoyable day inviting the charming Mr Ed Vaizey over to see the work-in-progress and talk to the press.

We're still not really allowed to say much more about the game, but in a bittersweet way, we have benefited from several high-profile studios closing down. When that has happened, we've been able to go over and speak directly to everyone affected, and anyone who shows an interest can be NDA'd and shown what we're up to.

Culture matters within a team. When developing a game that will be sold across the world, it really helps to have a cross-section of different gamers making that game. And as the teams discuss features and implementation, it's great to have reality checked by people who didn't all grow up in the UK, watching *Blue Peter* and playing *FIFA* on PlayStation. 46 of our 190 staff are from outside of the UK. But there are significant barriers to bringing people from outside the EU to work in the UK.

> ***"Generic degrees feed off students eager to progress into a highly technical and specialised industry, but without the world-view of what that really requires."***

Thankfully it's slightly easier than it was a year ago, when there was a virtual ban, and we had to stop inviting non-Europeans to interview. Now, when we find someone who brings unique skills to our team, we can apply for a visa and most of the time it's fine.

But it does create a barrier, because those candidates have to go through a period where they can't be sure we'll be able to employ them; it extends the offer period, and creates confusion and uncertainty.

THE BRAIN REGAIN

Some of those candidates will be from the US and Canada. Yes, it is possible to reverse the brain drain, seemingly oiled by the tax breaks allowing large investment in certain areas of those countries. You can see the attraction for UK developers to go and join a burgeoning community, but part of me thinks we may see some fallout from that.

The mega-studios being built and resourced now with relatively 'cheap labour' are growing very fast. They also seem to be responding to some of the difficult questions about development with the answer 'throw more people at it'. I'm not sure that's the way to build great teams and keep everyone motivated. When you're paying more for each member of staff, you're much more careful in the recruiting process to get the very best, and to support them once they're in the team. And let's be clear, the difference between a good team and a bad one puts any tax-break savings in the shade.

Skills matter too. Outside the UK, most countries seem not to have fallen into the hole of creating generic 'Games Development' degrees, but specialising in the core skills games developers still want – maths, physics, software engineering etcetera. Generic degrees feed off students eager to progress into a highly technical and specialised industry, but without the world-view of what that really requires.

As the Livingstone-Hope Review addresses so well, more specific skills need to be taught. Putting computer science on the National Curriculum and diminishing the more general ICT is a start; let's hope the tide is turning. Meanwhile, some of the best-educated staff are from outside the UK.

Given all the obstacles we face, we're still managing to bring in hugely talented people at the levels we need. We make great games in the UK; it's so easy to reel off a list of world class developers over here, from our friends at Sports Interactive through to newer stars like Mind Candy. But we certainly don't make it easy for ourselves.

Tim Heaton is studio director at The Creative Assembly, the UK-founded studio behind the acclaimed *Total War* series of PC games, as well as numerous other works including original and licensed products. **www.creative-assembly.co.uk**

//COMMENT: MOBILE

Fear & Loathing in Facebook

by **Will Luton**, Mobile Pie

"SO NOW, less than five years later, you can go up on a steep hill in Las Vegas and look West, and with the right kind of eyes you can almost see the high-water mark – that place where the wave finally broke and rolled back." - Hunter S. Thompson, *Fear & Loathing in Las Vegas*.

Chelsea football club's Stamford Bridge Stadium is a castle to a play industry stuffed to the throat with cash. It hosts self-made 'High Net Worth Individuals'. But today, in this darkened, black-cloth-lined conference room in its depths, the HNWIs have come from Silicon Valley, not Essex. The tans aren't fake.

This is Social Gaming Summit 2011.

It's coloured by confusion. There is a dejected nervousness and a happy optimism split. Facebook's European head of gaming partnerships Julien Codorniou keynotes the audience to start, telling tales of rags to riches. Some people seem unconvinced or others disinterested.

"There was a lot more positivity last year" says one man, stood beside the buffet. He's eating tiny sausages from a tiny saucepan.

Speaker after speaker after speaker, like fairground palm readers, predicts the future: It's Eastern Europe or South America. No, it's off portal. Maybe it's still Facebook, but with million dollar TV adverts and glossy magazine adverts. What it certainly isn't, everyone agrees, is Google+.

"If you don't have a strong mobile strategy, you'll become irrelevant" says Geoff Cook, the unceremoniously honest CEO of myYearbook.

The room tweets it. The social graph is expanding, but the web's acceleration is slowing as the world takes to the smartphone, which continues to boom as Facebook sign-ups plateau.

> ***"Mobile is a very competitive market, but unlike Facebook, gathering meaningful numbers of users can still happen with less funds."***

TO BOLDLY GO

Mobile is the new frontier. If you've read my column before you'll know I believe this to be true. We are Mobile Pie, not Facebook Pie.

Speakers paint a picture of Facebook as an impenetrable, colonised world which favours the very first homesteaders. They've gobbled up swathes of the land and now control it.

Today the outlay is now prohibitively expensive for any company in Facebook. You need considerable assets: Cash or players.

And whilst social gaming's founding fathers prosper, guerrillas identify unoccupied niches and carve it out. If the annex becomes considerable, the guerrillas defect to one of the nations, sharing in its riches. But they never win. The doors are closing on mobile much more slowly. But they will close. It is a very competitive market, but unlike Facebook, gathering meaningful numbers of users can still happen with less funds. *My Star* cost us somewhere in the region of half a new Facebook title. The next title will be more. So will the title after. But we aren't hitting $1 million yet.

ONE DEITY AT A TIME

If content is king and distribution is god, Apple and Google are benevolent masters, providing a single store front for discovery, routing distribution through it. They use their editorial independence to thrust new talent – with a significant leaning to the innovative and quality – into the limelight.

This boost would be worth tens of thousands, but it can't be bought. In doing so the playing field is evened and start-ups can compete with content, not just cash reserves.

Facebook's situation against mobile has created a spinning tornado of knee-jerk reactions and flim-flam and hyperbole.

Facebook as a web delivery platform may shrink over the next five years, but it is going to remain a meaningful market. This could be social gaming's first wave beginning to fade. Undoubtedly, there will be another behind it, because in a market so big if you can't compete on scale or cost, you compete on quality and innovation.

Will Luton is creative director at the award-winning boutique studio Mobile Pie. They create delicious own IP and work on licenses, with a partner list that includes the BBC, Orange and Hewlett-Packard. Follow Will on Twitter at @will_luton, or visit **www.mobilepie.com**

While many lost themselves to the hyperbole of Facebook gaming, many of the fearless and forward thinking are now pushing the boundries of the mobile frontier

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** acc. to AGOF internet facts 2011-08 *** acc. to IVW III/2011

THE JURY

MICHAEL HENGST

Producer – since1988 in the games industry. He worked as editor-in-chief of Powerplay and Videogames magazines, worked for Sunflowers, Das Trickwerk, JoWooD, Playlogic, Steelmonkeys and Gameforge. Since 2011, Michael is freelancing.

FELIX RÖKEN

VP, International Development Havok – worked as CEO of the Trinigy group until it was sold to Havok, a subsidiary of Intel. Since 2011 he is a member of Havok's Senior Management and responsible for the international business development.

PETRA FRÖHLICH

Editor in chief at PC Games – since 1992 the authority for gaming journalism in Germany and responsible, among others, for Germany's first ever magazine dedicated exclusively to games PC Games, play3 and N-ZONE.

FLORIAN STANGL

Editor in chief at buffed.de, pcgames.de, videogameszone.de – responsible for the widest-reaching online portals in the PC and online games segment.

HANS IPPISCH

Managing director at COMPUTEC MEDIA – started as a game developer on the C64 (Rock´n´Roll, Kangarudy) in 1986 and switched over to reporting in 1991.

The jury's decisions regarding the quality of the submitted games are binding for the participants. There is no legal way to verify the accuracy of these decisions.

FIND OUT MORE AFTER REGISTERING AT

www.makethegame.de

*** The jury will decide on the actual prize amounts for the publishing contracts at its own discretion. A total advertising budget of up to € 750,000 (within COMPUTEC MEDIA publications) is available to transfer the global marketing rights. Another € 250,000 is available as a non-refundable advance royalty payment. There will be up to three winning games chosen to share the advertising budget and prize money. The number of winning games and the cash prizes and advertising budget may be reduced accordingly if there are less than three eligible games submitted, i. e. games that meet the jury's criteria for quality and earning potential.**

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BETA

DEVELOPMENT FEATURES, INTERVIEWS, ESSAYS & MORE

Could a computer called Angelina steal our jobs?

p44

Job hunting?

Tips and guidance from recruitment experts, studio heads and industry vets on rebooting your career

Exploring Ubisoft Montpellier

p30

Region focus: Cambridge's dev hub

p37

Breaking free with MyHorse

p46

128 WAYS TO SAVE YOUR CAREER

With the jobs market tougher than ever, **Develop** brings you advice from the games industry's best on job hunting, promotion, setting up on your own and even managing your team

7 TOUGHEST INTERVIEW QUESTIONS AND HOW TO ANSWER THEM

HAVE YOU EVER HAD A CONFLICT WITH A MANAGER OR COLLEAGUE? HOW WAS IT RESOLVED?

"Please note that if you say no, most interviewers will keep drilling deeper and deeper to find a conflict. The key is showing how you behaviourally reacted to conflict and what you did to resolve it."

Stig Strand, Games Manager, Amiqus

IF I WAS TO ASK PEOPLE YOU'VE WORKED WITH WHO DON'T LIKE YOU, FOR YOUR WORST TRAIT OR LIMITATION, WHAT WOULD THEY SAY?

"If you ever get asked this, the trick is not to rise to the bait. More than anything it's one of a range of questions that can help an interviewer see if you can deal with intentionally challenging questions in a calm way."

Julian Widdows, VP of Development, Codemasters

WHAT IS YOUR EXPECTED SALARY?

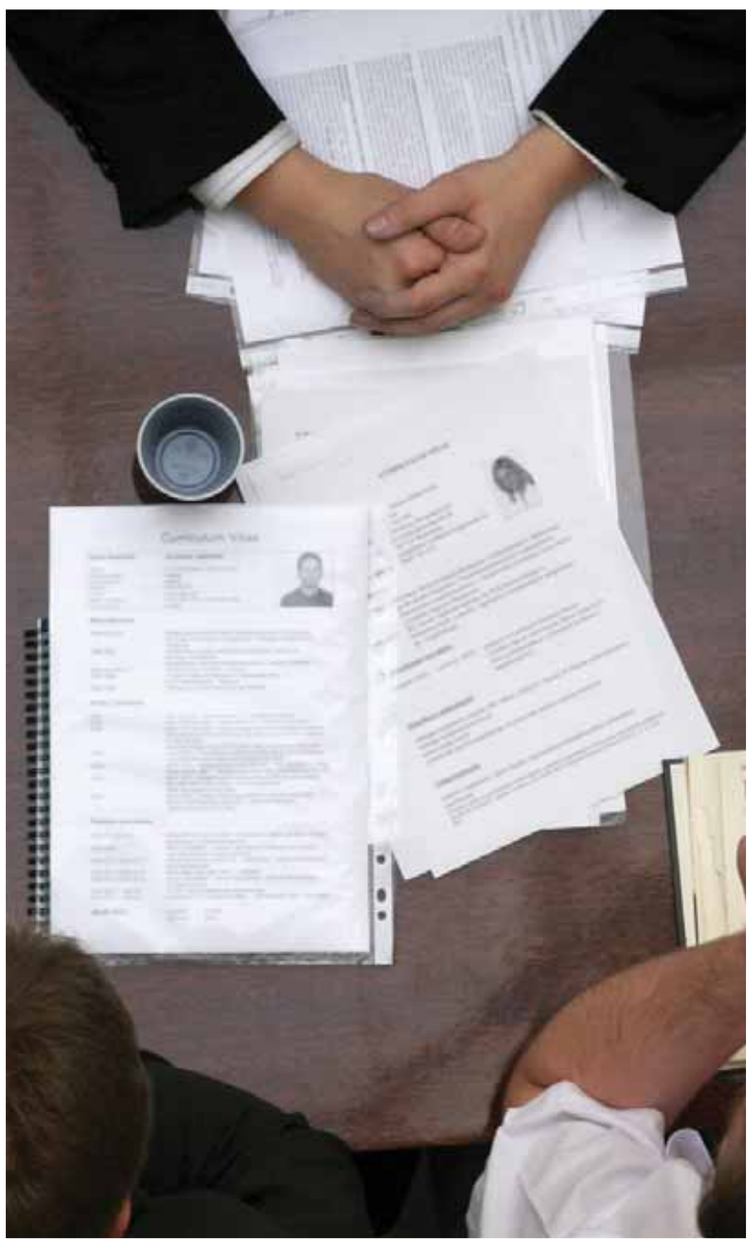
"Be sure to inform yourself before the application interview about the usual and average salary in your field and position. This shows that you are able to make an adequate assessment, and avoids embarrassing situations."

Anna Sparke, HR Recruiting Manager, InnoGames

TELL ME ABOUT A MISTAKE YOU'VE MADE AND HOW YOU HANDLED IT.

"This can be an intimidating question, but the reality is that everyone makes mistakes. Admit that you are one of those people – it's okay. Be honest and think back to the last performance review you had."

Fernando Blanco, Director of Marketing, Spacetime Studios



WHY ARE YOU LEAVING YOUR PRESENT JOB?

"If it's an issue for you, be honest but avoid dramas. Do not mention personality conflicts. Show objectively that you overcome the problem and that you've learned from the situation."

Sophie Dosière, Executive Assistant, Asobo

WHO ARE YOU?

"Do you know who you are? Here you can set yourself apart, depending on the quality of your response. Find your own way to answer. Think about it beforehand, balance the different aspects that make you – don't only talk about your career."

Anne Seebach, University Relations, Wooga

PAULINA BOZEK'S 6 INTERVIEW FASHION TIPS

Yes, it is a creative industry with a casual dress code, and nobody will expect you to wear a suit to work everyday. But, when it comes to interviews, some rules still apply – and what you wear can make a big impression on employers. Paulina Bozek, CEO of inensu, the creators of social fashion app Closet Swap – shares her interview fashion do's and don'ts.

Look smart and tidy and like you made an effort; don't show up in your flip-flops and scruffy jeans.

You do the talking, not your clothes. They may want you to make the next *My Little Pony* game… so save your favourite band t-shirt and gamer swag for the second interview stage.

Four letter H-A-T-E knuckle rings are also bad for handshakes.

Equally don't show up so glammed up that your outfit screams: 'I'm too sexy for this job!'.

The best accessory is a pen and paper for taking notes.

Keep it under-stated but be memorable – be that your glasses, the colour of your shirt or 'one or two pieces of flair'.

"Sometimes the toughest interview questions are completely unrelated to your skills or experience. These are the things you will be expected to know and understand without even thinking about it. So questions on alternative subjects or scenarios are often a great way to see how you react outside your comfort zone."

Richard Chipchase, Recruiter, Mind Candy

15 WAYS TO IMPROVE YOUR CV

"Leave the fancy fonts and tables for your portfolio. A lot of companies store resumes in an applicant tracking system, so the more straightforward your resume is, the better your chances."

Tim Johnson, Recruiter, Epic Games

"Often a reviewer is thumbing through a pile of pretty stale, almost identical documents. Just changing the layout to landscape might be enough to make your CV memorable."

Trevor Williams, COO, Playground Games

"Show some personality. If you wrestle lobsters or are a short wave radio ham, put it in your CV. Being an interesting person is worth almost as much your education."

Will Luton, Creative Director, Mobile Pie

"Here's something simple and basic: choose a logical order and check your spelling."

Hendrik Mainka, Head of Human Resources, Goodgame Studios

"Always make sure your CV answers the question 'What value/benefit do you bring to the company/role?'."

Andy Campbell, CEO, Specialmove

"Keep a CV to two pages or less. If you feel you need to include more then you are likely over-stretching for the job you are applying for."

Michael Burnham, Head of Production, Rebellion

"Shorter CV's can often be more impressive to employers, especially when you have the confidence to remove interesting information, and the self-awareness to understand how to tailor your personal presentation to the role that is on offer."

Julian Widdows, VP of Development, Codemasters

"Make it clear, concise and relevant – and always remember that what will actually get you the interview is the quality of your work."

Kim Blake, Senior Events and Education Coordinator, Blitz

"If you want to do something a bit crazy with your CV to stand out from the crowd, this is fine, but research who will be receiving it and the type of company you'll send it to."

Richard Chipchase, Recruiter, Mind Candy

"Improve top placement in keyword-searchable databases; be sure to use the key words from your job description and/or from the job offer."

Sophie Dosière, Executive Assistant, Asobo

"If you have creative skills, don't be afraid to use them. At Jagex we love opening up CVs that are different. The graphic designers amongst you can show us straight away why you stand out from the crowd."

Peter Lovell, Talent Acquisition Specialist, Jagex

"Spend your money on a cool, but professional photo."

Wiebke Burrichter, HR Marketing Manager, InnoGames

"Include website links to your portfolio, blog or Twitter page. In your covering letter, clearly state why you are interested in working for the company."

Torsten Reil, CEO, NaturalMotion

"Make sure you use LinkedIn as everything else is pretty much pure pony. Don't overrate yourself, just say it like it is and keep it lean."

Mills, Co-Founder, UsTwo

"Take time to personalise your application for the specific company – explain briefly why you really like that company and how your experience is relevant. A personalised CV demands to be read – and will be taken much more seriously than a generic CV."

Charles Cecil, Founder, Revolution Software

8 PLACES TO MOVE TO FOR A FRESH START

*"**Germany**. In the centre of Europe, its economy is strong and it has sausage aplenty. But the country only sets the scene for its star, capital city; Berlin."*

Gitta Blatt, Head of Human Resources, Wooga

*"**Scotland**. It's got amazingly lovable cities, gorgeous countryside and delicious whisky, what more could you ask for? Well, how about a vibrant entrepreneurial culture with loads of world-class digital output?"*

Yann Seznec, Founder and CEO, Lucky Frame

*"**Sweden**. With one of the highest standards of living in the world, strong economic, education and healthcare systems and a large proportion of English speakers, it's no wonder the country is fast becoming a top destination for games professionals."*

Alex Wright-Manning, Senior Development Consultant, Datascope

*"If you are limited to English speaking countries, **Canada**, **America** and **Australia** are options. And dust off your preconceptions of **Scotland**."*

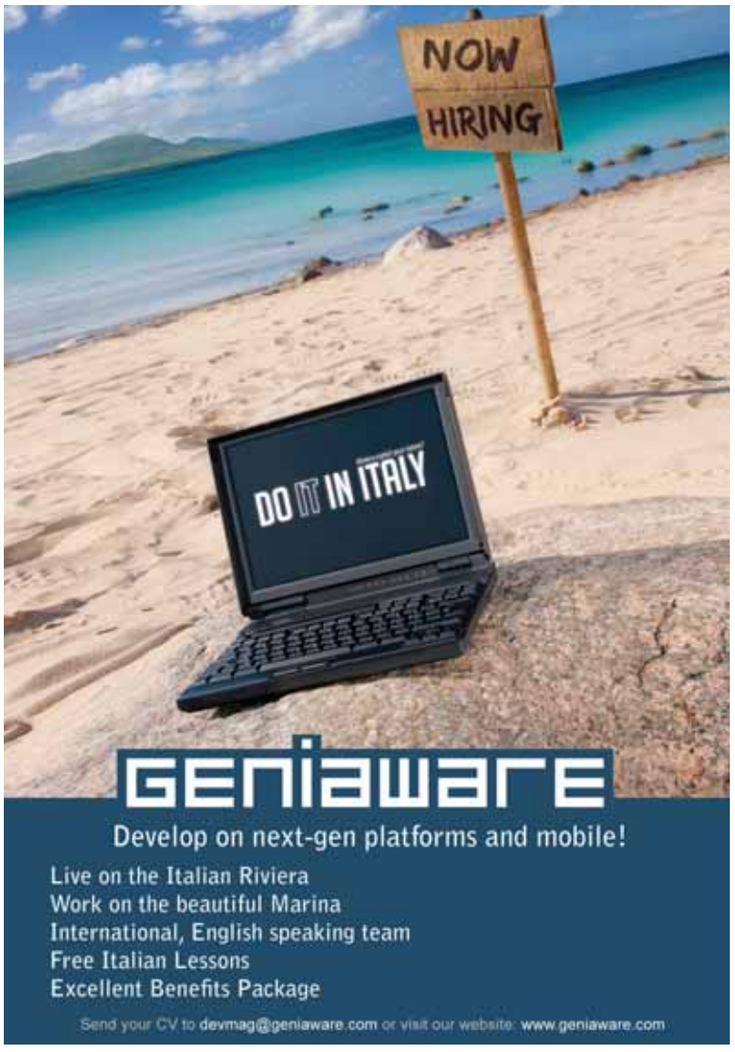
Andy Campbell, CEO, Specialmove

*"With its rapid expansion, **Dublin** brings in many new nationalities, and is very proud to be recognised worldwide for its friendly Irish hospitality."*

James Byrne, Technical Recruiter, Havok

*"Get back to the **United Kingdom**. It's got some of the best creative small studios. Everywhere else is bland."*

Will Luton, Creative Director, Mobile Pie



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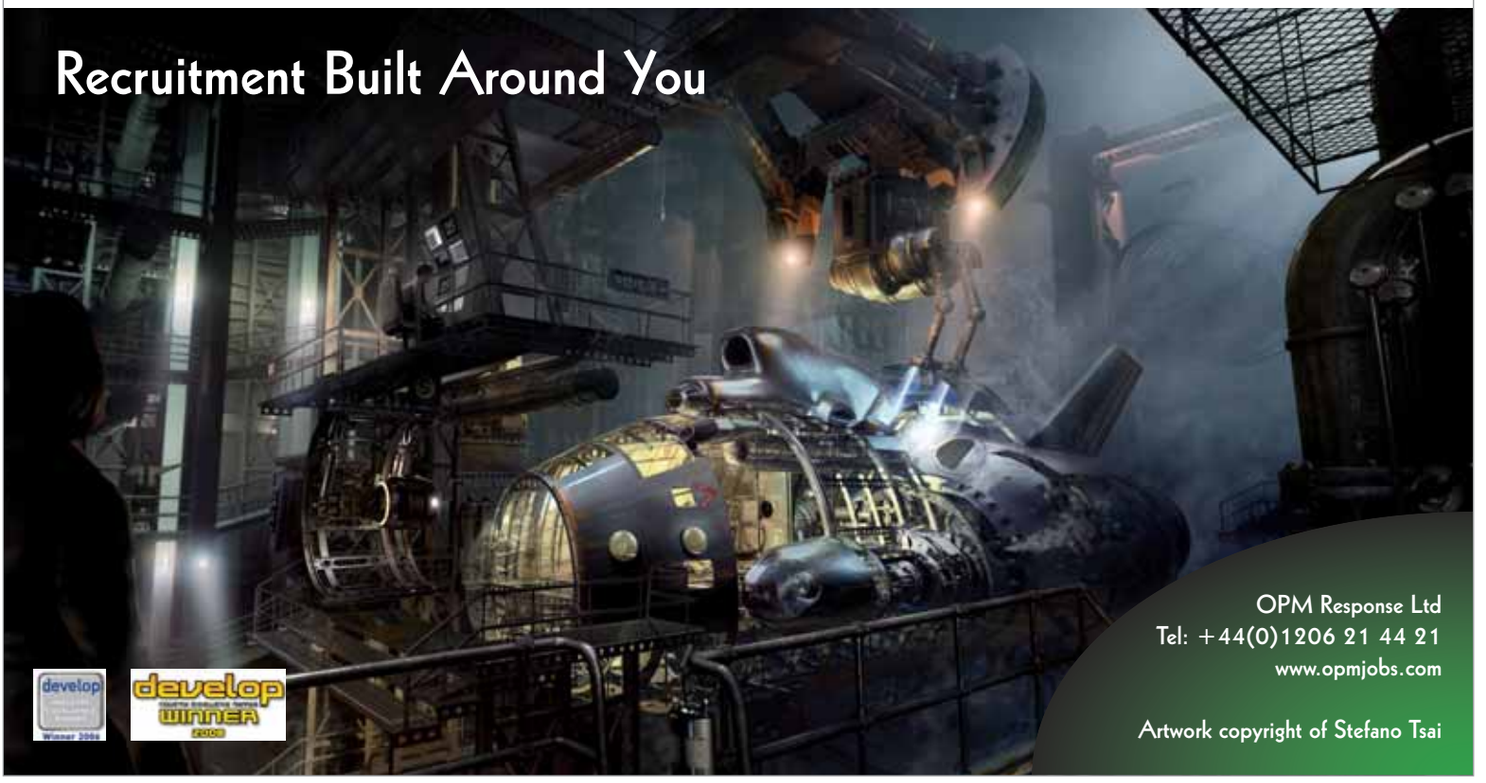


5 WAYS TO IMPROVE YOUR GAME DEMO

"Make sure you get some people who know nothing about your game to play it. And don't tell them how, just watch them, and note what they miss or spend 'too much time' on. Is your game's fun where you think it is?"

Ed Stern,
Lead Writer, Splash Damage

"Irrespective of what software development platform you use, make sure your demo works on the broadest hardware base possible."

Julian Widdows,
VP of Development, Codemasters

"Always ensure that your game demo is double and then triple checked."

Stig Strand,
Games Manager, Amiqus

"Do something simple, a little different and finish it. 50 per cent of effort in building a game is in the final ten per cent. Showing you're a starter and finisher is much more valuable than a half-finished high-poly tech demo."

Will Luton,
Creative Director, Mobile Pie

"Ok, so you've programmed an innovative new piece of code that will revolutionise the way that games are developed. What's that? It doesn't work when you send it to a prospective employer? Oh no! If you don't want to read the 'sorry, we just felt you didn't have the right level of experience' e-mails, then you have to be at one with test driven development."

Alex Wright-Manning,
Senior Development Consultant, Datascope

8 WAYS TO IMPROVE YOUR PORTFOLIO

"Prove that you can work in your potential employers style by sending eye-catching images that they can relate to."

Alessandro Taini,
Visual Art Director, Ninja Theory

"Always include your best work and try to keep your portfolio concise, showing off your main technical skills. There is no point trying to show an art manager everything in one reel unless you are going for a 3D generalist role."

Stig Strand,
Games Manager, Amiqus

"Pay attention to shape in all forms. One of the most common problems we see as a specialist games recruiter is disproportionate artwork. Precision makes any picture easier on the eye."

Kim Parker Adcock,
Owner, OPM Recruitment

"Don't put in any shit. One bad piece of work will damage all the good stuff. Pick five-to-eight of your best pieces – get someone you trust to tell you the truth – and include only what makes the grade. If you aren't good enough yet, don't bother having one."

Will Luton,
Creative Director, Mobile Pie

"Only send a few examples, and your best ones. Art directors, for example, do not have lots of time to review huge portfolios. They prefer to be convinced by a few stunning illustrations or graphics."

Katrin Seel,
Human Resources, Travian Games

"Have one. Programmers, game designers, artists and production should all have a portfolio of titles/work/examples to flip open and show. Even if it is just stuff you did in school, every prospective game employee should have a portfolio."

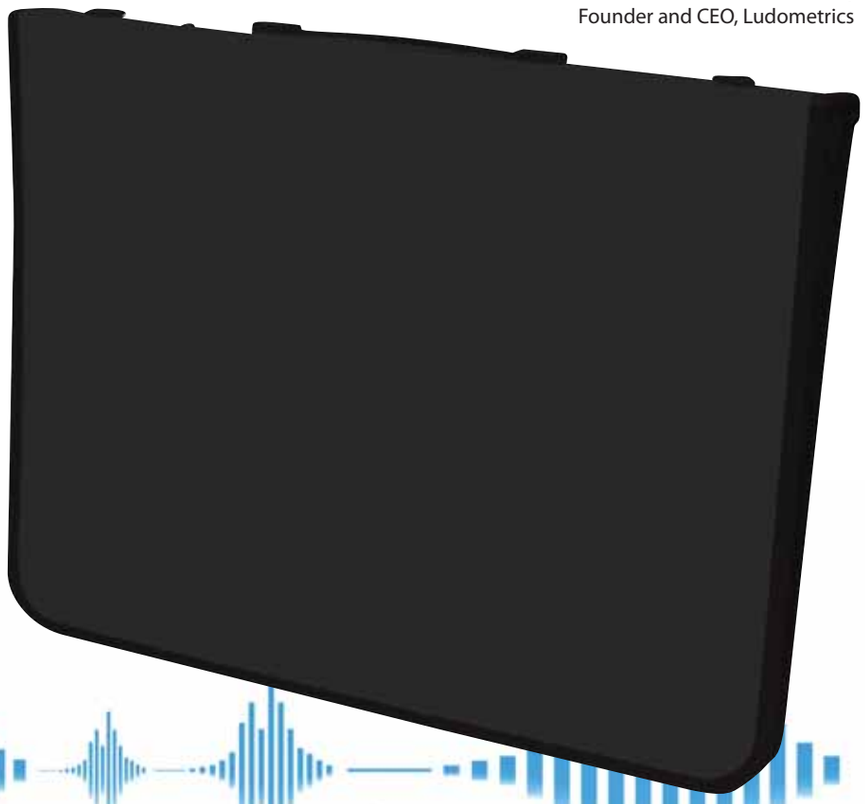
Chris Mayer,
CEO, Night Owl Games

"Experiment with our characters and designs."

Hendrik Mainka,
Head of Human Resources, Goodgame Studios

"Finish something. Finish and release as many things as you can."

Dave Thomson,
Founder and CEO, Ludometrics



4 WAYS TO GET PROMOTED IN AUDIO

"Be your own worst critic and aim for around a five-to-ten per cent keep rate. If you don't throw away at least 90 per cent of your ideas then you're not trying hard enough."

Russell Shaw,
Head of Audio, Lionhead Studios

"Research competing titles and come up with new and innovative ways to solve age-old problems."

Chris Sweetman,
Audio Director, Splash Damage

"Producing great audio assets is pointless without great implementation. Try to get a deeper understanding of the process and, if possible, invest in yourself and learn how to program."

Raymond Usher,
Founder and MD, Euphonious

"There are no shortcuts. Work hard, show people you can take responsibility, are highly technically competent, and can make amazing sounds."

Tom Colvin,
Audio Lead, Ninja Theory

20 MANAGEMENT BOOKS EVERY EMPLOYER SHOULD READ

"Drive by Daniel Pink and also a book called Getting Things Done by David Allen."

Julian Widdows,
VP of development, Codemasters

"Rework. Which should be called: The definitive guide to running 37signals. But what a company to know how to run."

Will Luton,
Creative Director, Mobile Pie

"Peopleware: Productive Projects and Teams by Tom DeMarco and Timothy Lister."

Michael Burnham,
Head of Production, Rebellion

"Slack: Getting Past Burnout, Busywork, and the Myth of Total Efficiency by Tom DeMarco."

Neil Alphonso,
Lead Designer, Splash Damage

"The Elegant Solution: Toyota's Formula for Mastering Innovation by Matthew E. May, and Difficult Conversations: How to Discuss What Matters Most by Douglas Stone, Bruce Patton and Sheila Heen."

Paulina Bozek,
CEO, inensu

"The Flight of the Buffalo by James A. Belasco and Ralph C. Stayer."

David Braben and team,
Frontier

"Who Moved My Cheese? by Dr Spencer Johnson helps you understand how you can deal with change in any situation that can arise."

Ben Royce,
Design Specialist, Datascope

"Winning by Jack Welch and Suzy Welch and Life Matters by Roger Merrill. Welch is a phenomenal businessman and I use some of the advice written in this book regularly."

Trevor Williams,
COO, Playground Games

"Patrick Lencioni's Death by Meeting, Dan Roam's The Back of the Napkin, Garr Reynolds' The Naked Presenter, Sandra A. Crowe's Since Strangling Isn't An Option… Dealing with Difficult People and Robert I. Sutton's The No Asshole Rule: Building a Civilized Workplace and Surviving One That Isn't."

Andrea Hartenfeller,
HR Manager, Crytek

"Built to Last by Jerry Porras and Jim Collins."

Dave Thomson,
Founder and CEO, Ludometrics

"Even if you are not in social gaming, Jon Radoff's book Game On is a powerfully insightful look at the business of games."

Chris Mayer,
CEO, Night Owl Games

"Kingdomality by Sheldon Bowles, Richard Silvano and Susan Silvano. Not strictly a management book, more an understanding people book."

Sean Turner,
Technical Director, Hutch

"Howard Schultz and Joanne Gordon's Onward: How Starbucks Fought for its Life Without Losing its Soul teaches you how not to lose sight of the very reason you started your company."

Mills,
Co-Founder, UsTwo

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"The E Myth by Michael Gerber is aimed at all those starting or running a small business of any type – including a development studio."

Ian Goodall,
Director, Aardvark Swift

"There is no one book with all the right answers. Instead, read the stories of successful companies and founders."

Andy Campbell,
CEO, Specialmove

"Most management books can be inhaled by just reading the reviews, so don't worry too much about them. But do spend ample time with other CEOs and other old hands, and learn from their stories and battle-scars."

David Helgason,
CEO, Unity

5 PIECES OF ADVICE FOR SETTING UP YOUR OWN STUDIO

"Understand you're setting up a business that makes games, not a fancy studio where you stroke your ego."

Andrew Madden,
Lead Artist, nDreams

"Just do it. Borrow money from your parents or friends if you need to and go for it. Never look back."

Mills,
Co-Founder, UsTwo

"Define what you are making and who you are making it for. Then question yourself on how are you going to get that product to the market."

Andy Campbell,
CEO, Specialmove

"Try to keep things simple and agile – that is your biggest strength at the beginning. You are faster than the big companies. Keep this value for as long as possible."

Hendrik Klindworth,
Co-Founder and Managing Director, InnoGames

"Biz dev guys are paid to say 'yes'. They will always be interested in your pitch as that is their job. If they are not talking turkey on contract terms within a month, then they are probably not going to buy your game. Move on."

Trevor Williams,
COO, Playground Games

5 WAYS TO GET PROMOTED AS A DESIGNER

"You're only as good as your team. Align yourself with the best in your studio and understand their qualities."

James Sweatman,
Game Designer, Jagex

"I don't expect every wannabe designer to have a final specialisation decided, but I do expect them to understand what areas are there, and bring demos proving their skills in the areas where they are strongest."

Imre Jele,
Co-Founder, Creator-in Chief, Bossa

"To get noticed, know what kind of game – and platform – you want to work on, and build a portfolio demonstrating your skills in this area."

Peter Leonard,
Recruitment Consultant, Amiqus

"Being loud, fast and confident will mean you get promoted, but undoubtedly you'll be hated too."

Mills,
Co-Founder, UsTwo

"Understand that the elements of story telling play an integral role to all game design. Pacing, conflict, character, setting, etcetera all come into play."

Patrick Wylie,
VP Studios, Big Fish Games

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6 WAYS TO GET PROMOTED AS AN ARTIST

"When people tell you to work on your style, ignore them and work on every style. Being adaptable makes you very valuable."

Will Luton,
Creative Director, Mobile Pie

"Keep your skills honed. However senior you are, you must still show 'potential'."

Paul McLaughlin,
Head of Art, Lionhead Studios

"Show amazing time management and line production abilities."

Andrew Madden,
Lead, nDreams

"From the first application interview on, make it clear that you are interested in a lead position."

Arne Lund,
Head of Graphics, InnoGames

"Show your ability to tailor your work to the game but don't be one dimensional."

Mills,
Co-Founder, UsTwo

"Expect to be critiqued. Receiving feedback from peers is an important part of any game artist's role."

Lee Davis,
Art Manager, PopCap Games International

4 WAYS TO GET PROMOTED AS A CODER

"A good attitude is worth ten years of assembly coding GPUs."

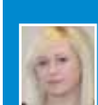
Will Luton,
Creative Director, Mobile Pie

"Look to take responsibility of the game as a whole as well as your own area."

David Braben and team,
Frontier

"For junior programmers, make sure that your leads and the senior producers know who you are and the work you are doing. In fact, grab them as they walk past if you've got something particularly cool/interesting/fancy etcetera."

Nic Melder,
Group Lead, Senior Programmer, Codemasters



"A good idea is to take responsibility for mentoring more of the junior programmers."

Hollie Heraghty,
Senior Recruitment Consultant, Aardvark Swift

9 DISCIPLINES WITH THE MOST OPPORTUNITIES

"Clearly monetisation specialists such as virtual item selling experts or payment managers will keep profiting from the continuing rise of free-to-play."

Marc Morian,
Marketing & PR Manager, Fishlabs

"I'd say cloud engineer. Computers are ever-changing and if anything was hailed as the future of gaming in 2011, it was cloud computing. Anyone with the skills in place to build this technology into products is going to be in high demand."

Kim Parker Adcock,
Owner, OPM Recruitment

"Engine optimisation, network engineering and analytics"

Gordon Bellamy,
Executive Director, IGDA

"UI design, definitely. Nowadays, everyone in the gaming industry is trying to produce highly compelling and attractive user experiences that are designed to keep their audience engaged with their games."

Francesco Genovese,
Recruitment Manager, Jagex

"The biggest demand in recent months we have seen, with the rise of the iPhone, Android and Facebook platforms, is calls for more programmers with skills in Javascript, Flash AS3, HTML and game engines such as Unity."

Lee Burns,
Recruitment Consultant, Amiqus

"I'd say AI, graphics and networking programmers."

Simon Miles,
Talent Acquisition Manager, Codemasters

3 WAYS TO IMPROVE YOUR PITCH OR MEDIA PRESENTATION

"Have a personality with a dash of humour and plenty of passion. Definitely don't be arrogant."

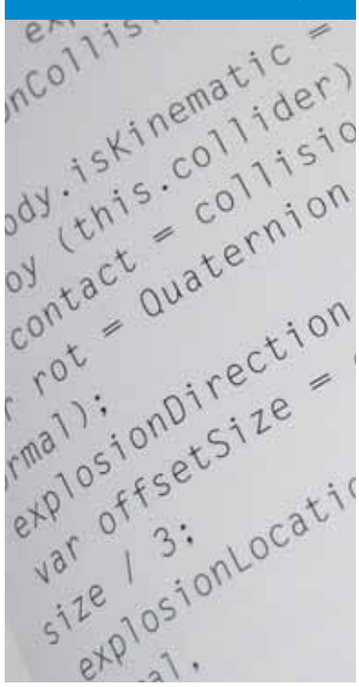
Mills,
Co-Founder, UsTwo

"First off, speak louder. Seriously, no one likes a quiet talker. On a metaphorical level 'speak up' also means you should talk about what you're doing. Why keep things to yourself?"

Yann Seznec,
Founder and CEO, Lucky Frame

"Do not be afraid of numbers. If you have revenue, ARPU or player/sales numbers in your presentation it can be a huge boost to credibility, even if the numbers are not yet big."

Chris Mayer,
CEO, Night Owl Games



8 WAYS TO USE SOCIAL MEDIA TO GET A JOB

"Get on Twitter, engage with industry people and show them you have the skills, an opinion and a passion for their business."

Mills,
Co-Founder, UsTwo

"Network, network, network. By networking with gaming industry professionals on platforms such as LinkedIn and Twitter, you're getting your name and experience known."

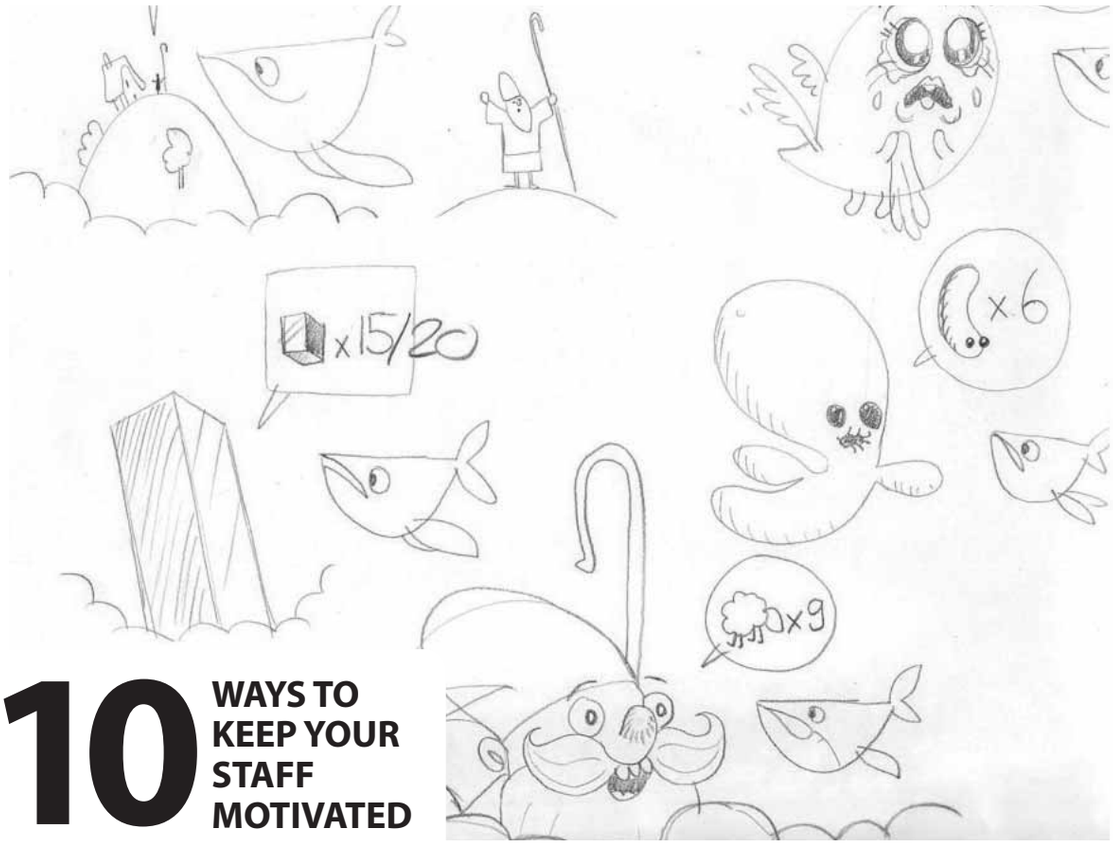
Sara McNaught,
Recruitment Coordinator, Jagex

"Make sure you're prepared, treat your profile as you would your CV, even if it means having a social profile and a separate professional one."

Liam Ward,
Trainee Consultant, Publishing, Aardvark Swift

"Upload a video on Youtube where you show your portfolio and present yourself."

Alexa Mann,
PR, InnoGames



10 WAYS TO KEEP YOUR STAFF MOTIVATED

"Make sure your team talks to each other, so they understand the bigger picture and have the motivation of caring about it."

Katharina Hautz,
Project Manager, Crytek

"Shower your staff with trust and responsibility. Admit when you aren't sure, and listen to them when they think you're wrong."

David Helgason,
CEO, Unity

"Always show respect in your dealings with others – you are the role model."

Volker Dressel,
Chief Marketing Officer, InnoGames

"Not everybody is purely motivated by salary. Team bonding is key to the success of small and often larger agile teams that are working closely together."

Stig Strand,
Games Manager, Amiqus

"Pay an attractive salary. It's not all about the money, but given the current economic climate, everyone is looking for financial stability and there's nowhere that this is more important than the monthly pay-packet."

Kim Parker Adcock,
Owner,
OPM Recruitment

"Be quick to criticise, don't faff around, be brutally honest and to the point. Then give them the ability to make it better. Use it to fuel their enthusiasm for personal improvement."

Andrew Madden,
Lead Artist,
nDreams

"Create a family atmosphere: a well stocked kitchen, comfy chairs and a good few consoles and games. We are all basic creatures."

Viktorya Hollings,
Head of Studio,
PopCap Games

"Show them you care about the them more than the business, treat them equal, and buy them beer."

Mills,
Co-Founder,
UsTwo

"Follow Herzberg's motivation-hygiene theory and carefully distinguish between 'motivators' that, well, motivate employees to higher performance and 'hygiene factors' that ensure the employees don't become dissatisfied."

Marc Morian,
Marketing & PR Manager,
Fishlabs

"Ask your employees what you can do to support their efforts. Do it often. Let them know that you value their special contributions."

Gordon Bellamy,
Executive Director,
IGDA

5 WAYS TO GET PROMOTED AS A STUDIO MANAGER

"Question processes and procedures. Are they really working as well as they could be? Suggest solutions to your manager if not."

Viktorya Hollings,
Head of Studio, PopCap Games Int.

"Always deliver value beyond that which is explicitly called out in the job-description or role."

Julian Widdows,
VP of Development, Codemasters

"Make sure the company you work for has growth potential, meaning they need to hire more studio support for you to manage."

Mills,
Co-Founder, UsTwo

"The most important skills to becoming a great studio manager are multitasking and attention to detail."

Donna Orlowski,
Studio Ranger, Bossa

"Be a problem solver; if something's on fire, put it out. Then, stop it from happening again by tackling the root causes. If you can reliably do that, you're someone who can improve and manage a studio. And if there aren't any fires, start some."

Stephen Gaffney,
Studio Director, Splash Damage

"Employers will make judgement on you, rightly or wrongly, based on your social networking activity – be careful. Never write anything that you wouldn't happily see printed on the front page of a Newspaper."

Andy Campbell,
CEO, Specialmove

"Use social media to ask people in your network to recommend excellent recruiters who have credibility within the industry and who may be able to help in finding the right job for you."

James Byrne,
Technical Recruiter, Havok

"Tweet people. Follow studios and people in those companies you like, then ask them to help you. They'll do it. Ask for help on your CV or portfolio, or even to be a mentor. You can easily turn them in to big advocates of you."

Will Luton,
Creative Director, Mobile Pie

"Twitter is a very liberal and dynamic tool. I'm not only talking about becoming best buddies with development celebrities, though that is certainly nice. But more importantly, I'm talking about the fact that you can hear about job openings first hand."

Imre Jele,
Co-founder, Creator-in Chief, Bossa

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Development Dir.
Studio Head
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Creative Director
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Salary Survey

Almost 1,000 games industry professionals took part in our salary survey – and 600 of them were games developers from around the world. Here's what we found out

AVERAGE ANNUAL GLOBAL GAMES DEV SALARY

£34,457

ANALYSIS & METHODOLOGY

THIS YEAR, our salary survey shows a sharp rise of seven per cent in the average UK games industry salary. Last year we reported the number at £32,203 p.a. – this year it is £34,457 p.a.

For this number (and all the rest of the averages in this report) we've calculated the result using a median average, rather than a mean average, from 582 survey respondents working in development around the world out of the total number of 975.

A mean average would otherwise distort the numbers by including the group of very senior, and very well paid, studio bosses, CTOs, CEOs and creative directors who also kindly contributed. With those high-fliers included the average rises to £37,407.

By comparison, accounting for all answers from all industry personnel worldwide, (including retail, publishing, services, media and PR execs) the median average is £34,263 from 2011's £28,932 (and the mean is up too, at £38,179 from £35,902).

So games development falls between these two figures – with the lower average most likely down to lower pay for retail, media and services, but the higher end distorted by good paypackets for marketing, PR and publishing staff. So while developers are better off than some, they aren't better off than everyone.

MEN VS WOMEN

WHEN THE UK industry only version of this survey was calculated for our sister title *MCV*, the most alarming point of discussion was a disparity in pay between what women and men earn. British female game dev execs earned almost £3,000 a year less than their male counterparts.

Unfortunately a similar trend can be found in games development globally, with men earning a median wage of £34,608 p.a. and women earning £32,357 p.a.

However, that's partially down to a lower proportion of female games developers relative to the total number of female games industry professionals in total. 35 out of 582 surveyed developers were women – just six per cent – whereas in the overall industry survey females accounted for almost 11 per cent of the respondents.

Currently, female professionals in the games industry are slightly more likely to work in retail, sales and publishing roles, and not in development itself.

That said, there is one disappointing statistic: no female developers said they earned £90,000 or over – but 18 men surveyed said they did.

Examine the answers from female developers we did get, however, and there are some disappointing anecdotal trends.

The biggest cluster of female games developers surveyed were designers – a third of all women surveyed. They were all aged 22 to 39. Their median salary is £26,944 p.a. (taking into account answers from junior, mid-level and senior designers).

Versus the comparable 89 male designers surveyed, across both a similar geographical and age spread, the median salary was £31,935.

The real kicker is this: the women surveyed were slightly more experienced than the men, with an average of three-to-five years' experience versus the men's two-to-three.

Our sample may be too small to make any broader conclusions, however – but this is genuine pause for thought.

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WHO EARNS WHAT?

ART
Lead Artist: £38,636 p.a.
Artist: £26,707 p.a.
Junior Artist: £18,055 p.a.

CODING
Lead Programmer: £44,868 p.a.
Programmer: £34,166 p.a.
Junior Programmer: £20,000 p.a.

AUDIO
Lead Audio: £42,000 p.a.
Entry level audio role: Starting at £19,318 p.a.

PRODUCTION
Lead Producer: £52,941 p.a.
Producer: £36,563 p.a.
Producer (External/Publisher-employed):
Junior: £27,500 p.a.
Senior: £41,875 p.a.

DESIGN
Lead Designer: £36,848 p.a.
Designer: £25,300 p.a.
Junior Designer: £19,772 p.a.

QA
Senior QA Manager (3+ years exp): £24,286 p.a.
QA & Testing Exec (client side): £18,676 p.a.
QA Basic: £15,200 p.a.

MANAGEMENT
HR Exec (senior): £36,000 p.a.
Middleware: £40,313 p.a.
Biz Dev: £55,000 p.a.
CTO: £55,357 p.a.
Creative Director: £60,455 p.a.
Studio Director: £65,500 p.a.
MD/CEO: £88,750 p.a.

UK GAMES TRADE

The other 400 or so respondents of our salary survey predominantly hailed from the UK trade, answering as readers of sister magazine *MCV*. Here's the results for salaries in non-games development roles, for reference and comparison:

GAMES RETAIL
Store Manager: £19,722 p.a. (UP 13% YOY - 2011: £17,500 p.a.)
Shopfloor Staff: £13,571 p.a. (UP 4% YOY – 2011: £13,000 p.a.)

SERVICES
Distribution Executive: £33,333 p.a. (DOWN 13.5% YOY - 2011: £38,570 p.a.)
Creative & Promotional Services: £33,000 p.a. (DOWN 1.5% YOY - 2011: £34,285 p.a.)
QA & Testing Exec: £18,676 p.a. (DOWN 11% YOY - 2011: £20,830 p.a.)

PR
Senior PR Exec: £36,500 (NO CHANGE YOY – 2011: £36,429 p.a.)
PR Executive: £27,500 (UP 10% – 2011: £25,000 p.a.)
Junior PR: £18,333 (DOWN 15% – 2011: £21,500 p.a.)

PUBLISHING
Senior Management: £71,429 p.a. (NO CHANGE YOY – 2011: £71,563 p.a.)
Marketing Director: £60,000 p.a. (New data for 2012)
Marketing Manager: £40,714 p.a. (UP 9% YOY – 2011: £37,188 p.a.)
Product Manager: £28,958 p.a. (DOWN 2.5% - 2011: £29,643 p.a.)
Sales Manager: £38,281 p.a. (DOWN 7.5% - 2011: £41,364 p.a.)
Senior External Development: £53,750 p.a. (NO CHANGE YOY – 2011: £53,750)

GAMES MEDIA
Editor: £25,000 (New data for 2012)
Section Editor: £20,000 (DOWN 17% YOY - 2011: £24,166 p.a.)
Staff Writer: £17,065 (DOWN 4.5% YOY - 2011: £17,885 p.a.)

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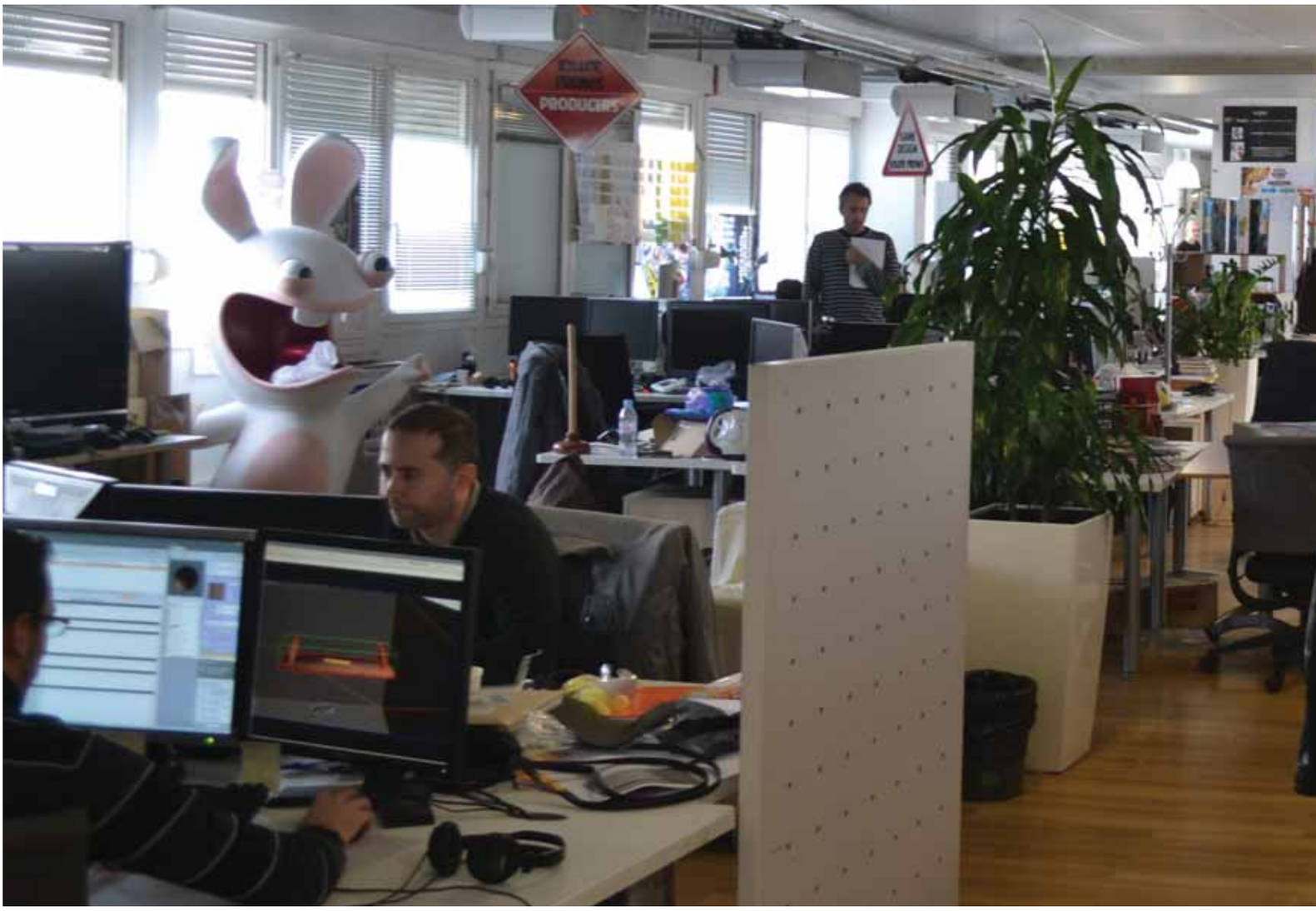


The staff at Ubisoft's Montpellier Studio are lucky enough to work on some of the giant publisher-developer's most admired titles

Ray of Light

Ubisoft Montpellier is the regular workplace of Michel Ancel, but the studio has a great more to it than a single iconic developer. As **Will Freeman** discovers, it is arguably the French giant's most creatively daring studio, and a place where the likes of Eric Chahi have come to realise their visions

RAYMAN ORIGINS was something of a new direction for Ubisoft's energetically creative Montpellier studio.

That is to say, it is a sequel of a game that itself began life at the development outfit situated in the south of France. Almost without exception, before *Origins* the Ubisoft Montpellier team has never worked on the same IP twice. Sequels, they insist, are not their thing.

While the numerous other Ubisoft studios scattered across the globe toil away on the triple-A fodder that has made the giant publisher and developer a rival to the likes of EA and Activision, in a discreet industrial building near the Mediterranean coast the Montpellier team focus on making games that are typically atypical.

It was at Ubisoft Montpellier that *Rayman* was born, and more recently where *Another World* creator Eric Chahi chose to step out from several years in the development wilderness to create *From Dust*. It is where *Beyond Good and Evil* was created, and where resident luminary Michel Ancel proved the potential of licensed IP with the *King Kong* video game. The studio is central to the *Rabbids* games' early history, and today it remains the place to be for Ubisoft staff hoping to flex some of their creative muscle.

> ***"There is this pacifistic aspect to what we do. It comes from the feeling, the atmosphere and the history of this studio."***
>
> Benoit Lambert, Ubisoft Montpellier

And yet all too often, such is the interest in Ancel, when a spotlight is cast on Ubisoft Montpellier it misses everything but the man who made *Rayman*.

Yet Ancel is not the only creative visionary at the studio. Certainly, the output of the Montpelier team is still mainstream entertainment for the masses, but its games remain quite different from most chart-focused products. They are always offbeat, regularly creatively risky, and never explicitly violent. Other Ubisoft studios have made profitable sequels from Montpellier-generated IP, but rarely is it the task of those lucky enough to work with names like Ancel and Chahi to return to an intellectual property of their own creation.

PICTURE THIS

Ubisoft Montpellier's history is an intricate one of multiple locations and transformations that is integral to the wider

company's early efforts at expansion. But despite much change, its creative spirit has remained largely untouched since it was known as Ubisoft Pictures and merged with locally acquired developer Tiwak in late 2003.

"There has always been a desire here to create new things," says studio director Benoit Lambert. "That has never changed, but it isn't only a good thing. Of course it is exciting for people, but it is also quite tough, because you always have to recreate and re-prove yourself constantly. It is difficult here in that way, but that is how the people here like it. It is how they have always liked it."

It's unusual to hear a manager introducing the studio they oversee with talk of difficulty and challenge, but for the team at Ubisoft Montpellier, it seems to be a matter of pride. There's much talk of achieving the output of far more sizable studios. In 2011 alone, the team of 200 released four high-profile boxed games – *Rayman Origins, Tin Tin, From Dust* and one iteration of *Michael Jackson Experience* – all the while working on a new triple-A WiiU title and continuing the efforts of a fiercely productive R&D department.

And yet there is still time for some misty-eyed romanticism.

PEACE BE WITH THEM

"There is this pacifistic aspect to what we do here," insists Lambert when asked what defines the games that Ubisoft Montpellier creates. "It comes from many things. It comes from the feeling, the atmosphere and the history of this studio. Many people have been here for a long time and have created families here, and their lives have become about balance. Part of that balance is about making positive game worlds. There is that family influence – both our real families and the family of the studio – that drives us to do positive things. The lives of the people that make up this studio are what influences the positive feelings of our games."

The aforementioned Wii U game, *Killer Freaks From Outer Space,* might signal a very definite end to Ubisoft Montpelier's claim to pacifism, but Lambert's point still stands. The team around him do things differently, thanks to a confident sense of creative culture, and a knack with technology that surpasses even that of some dedicated middleware companies.

"There is always a focus here on productivity – on being agile and being fast – and how you do that is not through ideas, but through technology and how you perceive technology," offers Lambert. "We are driven here by a strong desire to have flexible tools and technology that can help us be efficient and reactive. Making our own tools is really as simple as us giving a painter the best brush."

The engineers at Montpellier have made those brushes in abundance over the years,

LICENSED TO THRILL

Of all of Ubisoft Montpellier's achievements, its work with licensed games may not be the most talked about, but the studio's ability to be creatively bold with closely protected external IP is worthy of commendation.

The game of Peter Jackson's *King Kong* film was well-received by consumers and critics, and the recent *Tin Tin* title based on the animated movie took the relatively commercially risky step of being a platformer in the traditional mould.

> ***"The directors of films like Tin Tin and King Kong speak the same creative language as the team at Montpellier."***
>
> Dominique Duvivier, Ubisoft Montpellier

The latter may have divided critics, but everyone agreed it was far from typical compared to modern lincesed games.

"We've spent months with teams like those behind the *Tin Tin* movie, carefully working out concepts, prototyping, storyboarding and scriptwriting," says technical architect Dominique Duvivier of Ubisoft Montpellier's knack with the movie tie-in. "We've been able to gain their trust by respecting their IP and their creative vision. It takes a long time, and like everything here it comes down to a core creative competency and an ability to tell stories. The directors of films like *Tin Tin* and *King Kong* speak the same creative language as the team at Montpellier."

Ubisoft Montpellier staff (Top-to-bottom) Benoit Lambert, studio director, Christophe de Labrouhe, senior gameplay programmer, and Philippe Vimont, senior programmer and technical engineer

Rayman Origins stood out as one of 2011's most visually distinct and beautifully realised game developments

and Ubisoft operations all over the globe have built hits on tech conceived and developed in the south of France.

Ghost Recon engine Yeti has roots in Montpellier, while the Jade engine was crafted entirely at the studio for *Beyond Good and Evil*. The powerhouse that is Ubisoft Montreal even used Montpellier-created facial animation system Mocam in its blockbuster *Assassin's Creed: Revelations*.

CLOSE QUARTERS

The advantage of having proprietary tools in the same building as Ubisoft's most creatively daring developers is simple. Proximity makes collaboration easier, allowing that agility Lambert holds so dear.

"That closeness of designers and engineers has meant that despite creating this powerful technology, we can be very agile," confirms Philippe Vimont, senior programmer and technical engineer. "Here at Montpellier the engineers can communicate very easily with the game designers. We may not have a huge number of people here, but we have the ability to change projects very fast and move quickly. That setting benefits us greatly, and is part of why we have achieved what we have."

Walk through Ubisoft Montpellier's colourful corridors and it does seem to be the case that those from disparate disciplines constantly gather around one another's desks, pointing enthusiastically at screens before darting away. As a visitor it's hard to know absolutely, but it certainly feels game designers and engineers are closer here than at most other studios.

Which brings us to creative competency. For, despite the technological experimentation that is so treasured at Ubisoft Montpellier, something else has made the studio a success, and iconic developer Eric Chahi believes he knows what it is.

"There are very talented engineers here at Montpellier, and while the technology they made was very important for *From Dust*, with any game it is the people that matter," says the man most famous for creating *Another World* and *Heart of Darkness*.

> ***"We may not have a huge number of people here, but we have the ability to change projects very fast and move quickly."***
>
> Philippe Vimont, Ubisoft Montpellier

"People create the games and program and code. For *From Dust*, we had the chance to have the right people. The quality of a studio comes from the quality of its people, and Ubisoft Montpellier left me very pleased, especially with boh the programmers and the engineers.

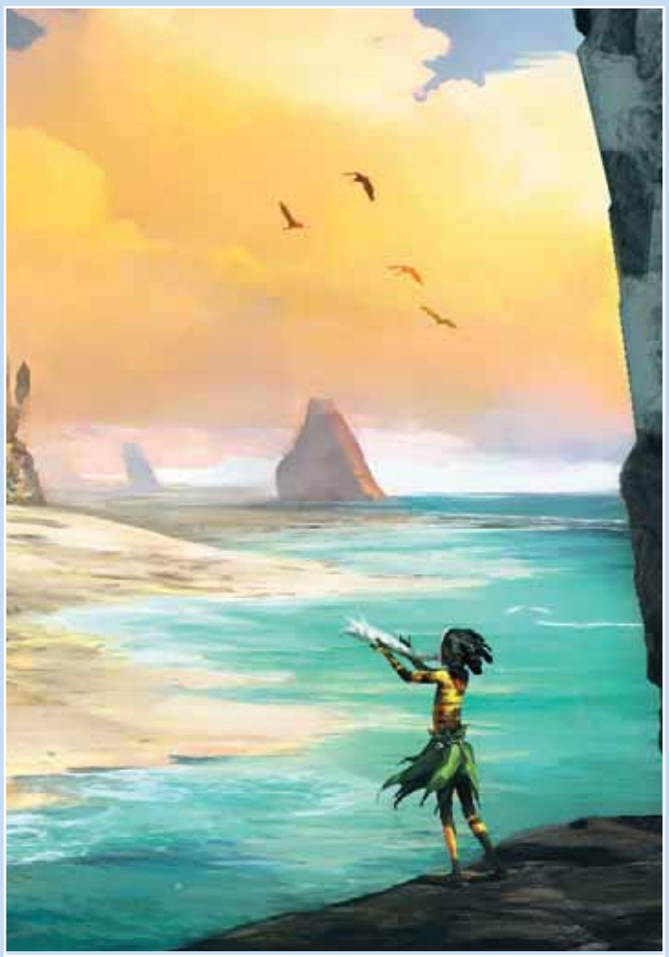
It doesn't seem surprising that a studio would sing the praises of its staff; it would be far more unusual – and worrying – to hear the opposite, but at Montpellier there is something to give some credence to the claims of staff talent, and that is heritage.

"I think we have to recognise the role of Michel Ancel, and also guys like Eric Chahi and Jacques Exertier, who was central to *Rabbids*," says Christophe de Labrouhe, senior gameplay programmer. "They are a very important presence in the studio as they give us direction towards the feeling of our games. They are very good directors who expect a lot and know how to guide."

Lambert and his colleagues also accredit the status of the likes of Ancel and Chahi as giving them the clout to attract and recruit the best young developers. They insist that within the wider Ubisoft family of studios Montpellier has something of a status as a hugely desirable place to work, and admit frankly that offsetting the genteel family atmosphere is a high standard set by those creative visionaries that have made the studio's output famous.

"There is that state of mind here, and that is what allows the creativity, but there is also the standards set for us," explains Lambert. "Michel, for example, is demanding. I mean, he is very demanding, and it is this that means we can be successful. Yes, it is very nice here, but the state of mind is not like Woodstock in the 1960s. We work very hard and there is a lot of ambition."

Looking to its future, ample success looks certain for Ubisoft Montpellier. *Killer Freaks* might be ending the era of pacificism, but it is also broadening the studio's skill set and technological agility, and ushering in a new era of productivity for the team that prop up Ancel's iconic status.



FROM ANOTHER WORLD

When Eric Chahi approached Ubisoft about his return to games making, the *Another World* creator picked the Montpellier studio as the place to build *From Dust*.

"From the beginning the way about the team at Ubisoft was very important to *From Dust*, because it is a very different game that needed a diverse team," he reveals. "I visited the studio maybe two years before the game, and that let me start to think about what kind of game I could make at that studio. Unlike Ubisoft Paris, which is very big – too big – there was something just right about Montpellier for *From Dust*."

Part of the appeal was what Chahi calls Montpellier's 'artists with code'. He's talking about the engineers at the studio behind some of Ubisoft's most ambitious internal tech, and along with the team's numerous designers, coders and artists, they've left him feeling particularly optimistic about the games industry.

In previous years Chahi has criticised the sector's lack of emphasis on creativity, but now he's hopeful for the medium's future.

"Things are moving forward now, especially in the indie space, which is growing and growing, and I think it is very energising for the whole industry," he says. "In the last decade, the industry was slowing down creatively. The large companies had retail distribution, and that made it hard for them to take lessons from any other developers other than similar large studios.

"But now that has changed. *Minecraft* is a perfect example of a lesson that the indie community can teach the major companies. Nobody at a large company would have believed in it."

According to Chahi digital distribution has given creativity a renewed voice and informed and broadened the perception of gaming. This, he says, will encourage large companies to take more risks.

"I think, from two or three years ago we entered a mutation that has brought about a phase of innovation. Maybe it is not the biggest innovation, but these small innovations and small games like *Ellis, Sword & Sworcery, Journey* and *Flower* are offering a different world that is changing everything. In three or five years, with audiences now accepting very different experiences, things will be very exciting.

"The changing audience is very important, because creatively risky games need an audience. We all need an audience."

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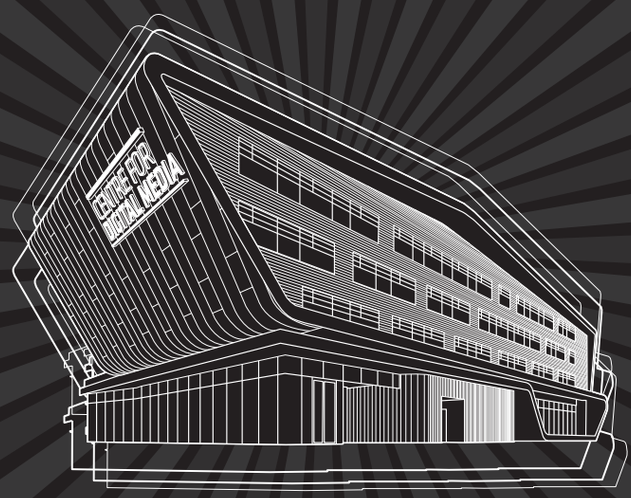

Architectural rendering of the new Centre for Digital Media to open Fall 2012.

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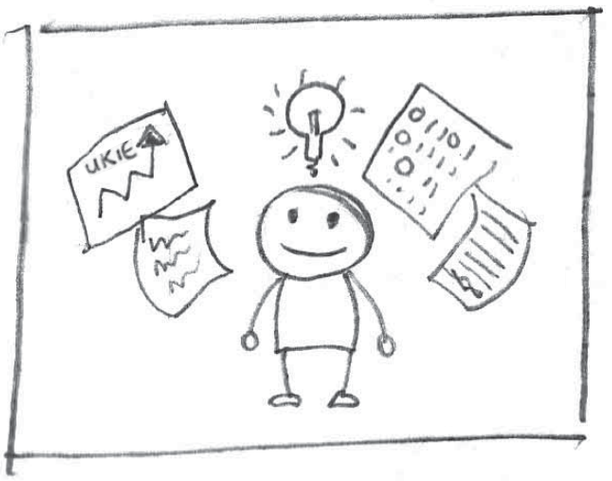

Character receives UKIE Charts, data & reports to help them choose game target and move to the next level

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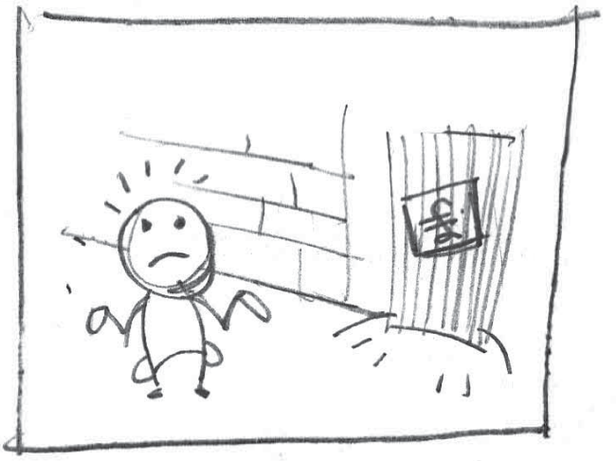

Can't progress though game due to lack of funding

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Earn extra lives and more weapons by using UKIE's legal advice service

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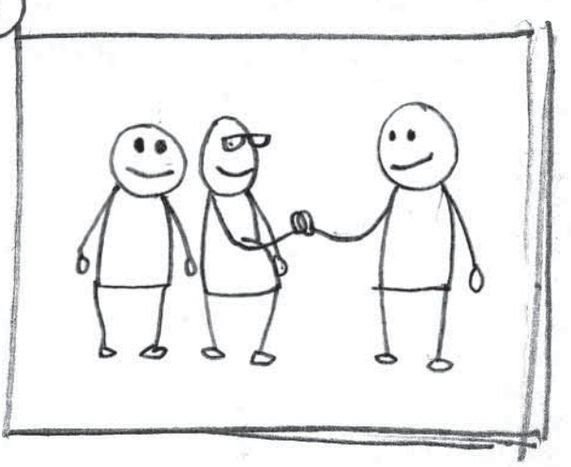

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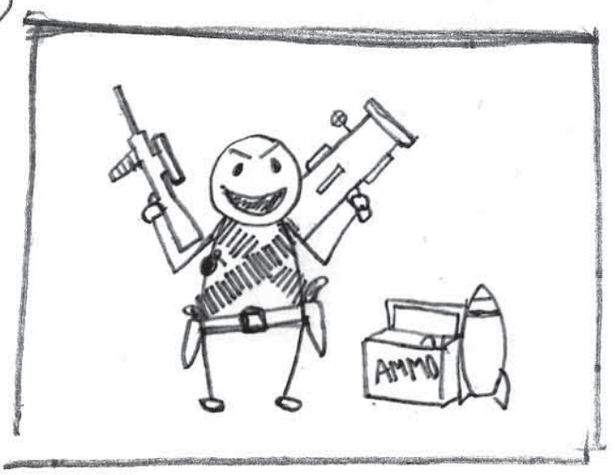

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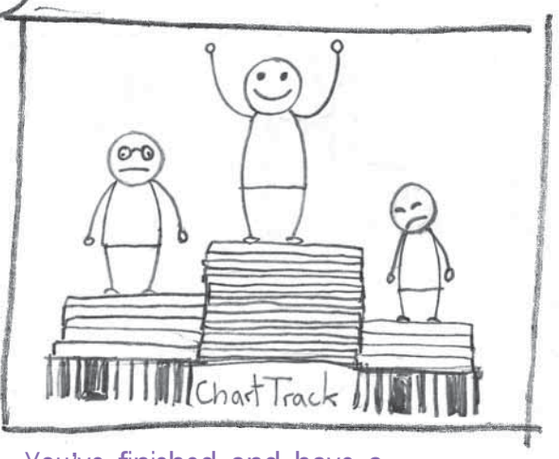

You've finished and have a successful game!

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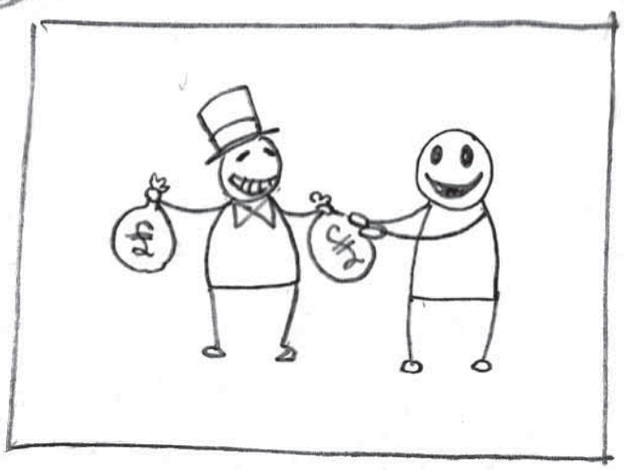

UKIE help with investment opportunities, networking, introductions to angel investors & venture capitalists

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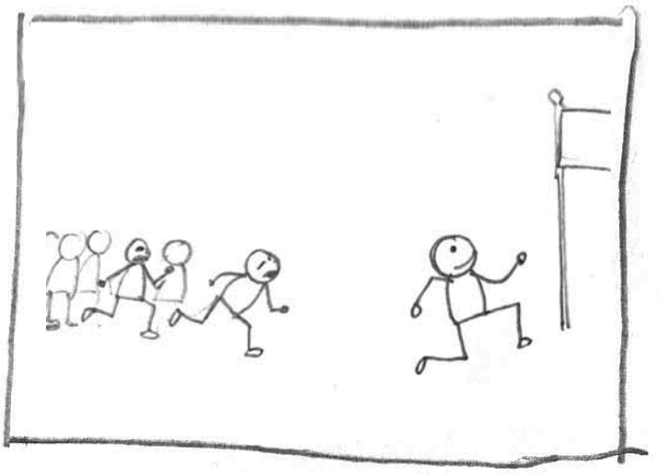

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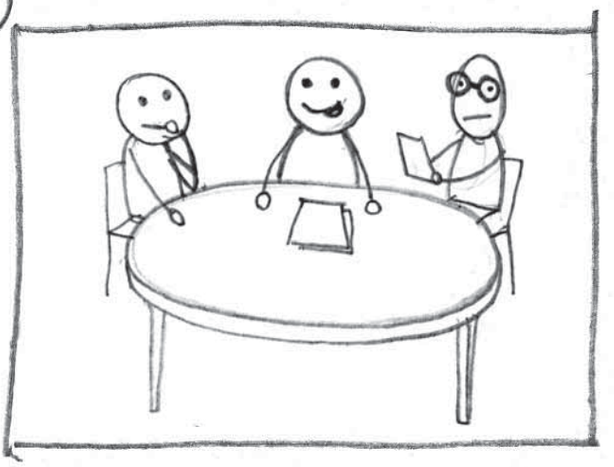

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A lesson in resilience

Despite the struggles of the UK industry in recent times, the Cambridge development sector seems to be booming. **Craig Chapple** asks the local studios what makes the area so resilient to the challenges it faces.

THE UK INDUSTRY has been through tough times over the last few years, with many studios going out of existence or packing up and leaving for better tax incentives aboard.

The development and technology sector in Cambridge however has, for the most part, bucked the national trend, and has continued to grow whilst other regions have failed.

Jagex, one of the UK's biggest development outfits, has just moved into a larger building, to house its 400 plus strong work force, with plans to continue growing. Frontier Developments meanwhile also staffs 210 employees, making them two of the largest independent studios in the country.

The new Jagex building (above) with CEO Mark Gerhard's tank parked outside, reflects the strength and success of the studio and its contemporaries in Cambridge

A BOOMING INDUSTRY

As well as a number of start-ups, big technology companies and game developers in the area such as Microsoft Research, Geomerics and Ninja Theory, Cambridge accounts for more than ten per cent of the country's industry workforce.

Mike Ball, co-founder of *Devil May Cry* developer Ninja Theory, which has 101 employees, says: "The games industry in Cambridge has certainly broadened over the past few years as new devices and platforms have come to market.

"The larger studios in the area have continued to grow and explore those new opportunities, whilst a wealth of small indie developers have sprung up all over the place. While many areas of the country have seen independent developers struggling in the harsh financial climate, Cambridge developers have weathered the storm well."

The technology hub now also has a robust and diverse mix of companies, and as well as different sized development studios, there are middleware providers such as Geomerics, QA specialists Universally Speaking, Microsoft Research Cambridge, which was responsible for the development of the Kinect, and Google acquired voice technology firm Phonetic Arts amongst many others.

Geomerics sales VP Rob Precious says: "Cambridge has a very diverse mix of technology companies related to the game development space.

"And as a direct consequence of the large, major developers and student communities located here, a vibrant indie community of new entrepreneurs has emerged, taking advantage of the new routes to market."

UNDERLYING TROUBLES

Despite such a plethora of companies, Universally Speaking's localisation manager Loreto Sanz Fueyo believes that the region lacks a sense of community that many development hubs such as Dundee and those in Canada thrive on.

"We need to develop more of a community sense and leave aside individualistic approaches in order to present Cambridge as a more united games hub, rather than a collection of individual hi-tech companies," says Fueyo.

> ***"As a consequence of the large, major developers and student communities here, a vibrant indie community has emerged."***
>
> Rob Precious, Geomerics

The local industry has also had to deal with the same well documented troubles that the rest of the country and the world has suffered from over the last few years, with problems such as finding experienced talent and the UK's distinct lack of development tax breaks and incentives offered by the government.

Jagex CEO Mark Gerhard says that whilst the studio has just expanded, moved into a new office and is having huge success with its *RuneScape* franchise, things definitely haven't been easy.

"The reality is the UK games industry is not in a good place, and that's a shame. We would far prefer 20 equal sized competitors, as it raises our game, than simply be the UK's largest indie developer and publisher.

"This is a function of a number of things. Some people lost touch with the platforms and where players were actually at. Others focused on the wrong stuff; whilst others achieved a scale that was unsustainable.

He adds: "It has been a tough year for Jagex, probably our toughest in history, and you can look at that two ways. You can be fatalistic about it or you can say we've all got to step up and do double just to stand still."

Ball says that it is essential that the UK government allow the development industry to continue to compete against other countries receiving support. He states that it needs to encourage more export trade in the current financial climate, as the games industry is one that generates export and is very beneficial to the UK economy.

Gerhard explains that although Cambridge is a fantastic area due to its open landscape and availability of talent, there have been pressures to move abroad, especially after such a difficult year.

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Top to bottom: Frontier founder David Braben, Sony's James Shepherd, Games Eden chair Jeremy Cooke, Universally Speaking's Loreto Sanz Fueyo, Jagex CEO Mark Gerhard, Ninja Theory co-founder Mike Ball and Geomerics' Rob Precious. Above right, Ninja Theory's multi-million selling Devil May Cry series has recieved positive reception around the world and is the company's stalwart franchise

"The reality is when we're looking at new developments, we have pressure," he admits.

"We haven't succumbed to them yet, but we have pressure to do things in a different way, to outsource, to do it in different countries and even move the whole company to another country with a better tax regime.

"I think its fair to say UK games developers are by default at a disadvantage. That's a hard fact by comparison to America, Canada, France or anywhere else. And if they're serious about this staying a centre of excellence, not just Cambridge but the UK, that has to be fixed, and hopefully soon before someone turns the lights out on the games industry."

SUCCESS THROUGH INNOVATION

Ball says that to overcome the challenges facing the region, local studios need to innovate to stay ahead of competitors, rather than churning out games based on tried and tested formulas that get lost in the sea of available titles. Although he admits this must come at a balance and not at the cost of the company's future.

"It's one of the biggest things that attracts people to Ninja Theory. Risk has to be balanced with a healthy dose of quality too," he says.

"There are a lot of people out there right now who are taking big risks and throwing cheap product at the wall to see what sticks. We simply can't compete with that development approach."

Sony development director at Cambridge James Shepherd also explains that developing new ideas is extremely important to stand out, and that as part of Sony, their brief is to support the PlayStation family, stating: "This means that innovation is key for us in everything we do".

Gerhard agrees that it is imperative for Cambridge studios to take creative risks, believing that with staying inventive and moving with the industry, developers can avoid the mistakes of the past and from falling behind their competitors.

> ***"Innovation and agility is core to our survival strategy. Our philosophy has always been that we remain a moving target."***
>
> Mark Gerhard, Jagex

"Innovation and agility is core to our survival strategy. Our philosophy has always been that we remain a moving target. That comes with risk as it means you sometimes go into an area that you have absolutely no expertise about," he explains.

"The right thing to do is to innovate. But how do you have the bravery to say 'we totally believe in the new idea' to gamble on it, and risk the existing subscriber base that props up the business.

"The reality is those are either brave decisions to take or foolhardy ones, and time will measure you accordingly. But that's really it for Jagex. By keeping the smalls studios and keeping it indie and entrepreneurial, great ideas are coming up from the developers, and we're saying to them 'go for it', rather than being top down and perhaps being less relevant."

Frontier chairman David Braben, however, says that he isn't sure the burden should fall on just Cambridge, but feels that "the biggest rewards come when you innovate whilst delivering quality, which is what we strive to do."

PUSHING TECHNOLOGY

Taking development risks is not the only important area studios should focus on. Precious says Cambridge provides an ideal environment for companies like Geomerics for R&D intensive industries, which he believes is the key area studios must concentrate on and put more effort into as a region to stay competitive.

"Incentive to invest in R&D is already available but not heavily promoted or taken up. More prominent and persuasive encouragement is needed in this area," claims Precious.

"Certainly at Geomerics we take this extremely seriously and continuous R&D is how we keep ourselves ahead of the competition. This commitment to staying at the bleeding edge of technology has ensured that we are relevant for such cutting-edge studios as EA DICE to use in titles like *Battlefield*. "Investing in R&D is always a risk, but it is one we are always willing to take."

Whilst taking risks and innovating to stay ahead of a global industry is one potential solution to keep the local industry thriving, it is also important for studios to work with the local academic institutions to train talent and turn them into the experienced professionals the industry currently lacks.

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RuneScape remains one of the Cambridge dev hub's most famous exports

LACKING EDUCATION

Despite having a famous reputation as a distinguished university town, with the University of Cambridge up there with the best in the world, many studio developers claim that there are not enough games related courses in the area.

In fact, whilst the University does teach computer science, which many developers such as David Braben have stated as their preference for students to study, it does not teach any courses specifically tailored to games development.

Although another higher education institute, Anglia Ruskin University, does run undergraduate programs in computer gaming technology and interactive games design, many developers at the local studios believe much more needs to be done to truly take advantage of the large potential talent pool the town offers.

Universally Speaking's Fueyo says: "At the moment there are just a handful of universities that offer games development programs or that even have modules on game development on their degrees.

"This number of courses must increase to drive up the quality of the courses through competition. At the same time, an increase in the number of courses would enable specialisation within those programs."

Despite this, Ball claims that Cambridge University excels at many of the traditional courses it offers, such as computer science, engineering, maths and physics.

"Graduates leaving these courses are easily able to get up to speed with the requirements needed for games development and hence they become really strong members of the team."

Braben feels the same, stating that he is "definitely happy" with the contribution of local academic institutions in providing top quality graduates.

> ***"At the moment there are just a handful of universities that offer games development courses or modules."***
>
> Loreto Sanz Fueyo, USS

"We have a really good track record of employing graduates and giving them the right individual mix of support and responsibility, and that has forged good links with Cambridge University and Anglia Ruskin," he says.

IN-HOUSE TRAINING

But with the lack of game specific courses in the university town, and the perceived lack of quality in those programs across most of the country, many of the studios in Cambridge have taken it upon themselves to train up young graduates, where perhaps other companies may not have found this financially viable.

"I think what we find in Cambridge specifically is there's more of us taking the long view," says Gerhard.

"We're hiring in IQ and teaching them everything. We know that the people we're hiring today really only become our rockstars in three or four years time at the earliest. For most other companies that's just uneconomical."

Geomerics take this philosophy a step further, and Precious says that whilst universities provide an excellent education to students and a great recruiting ground for them, it should not be down to these institutions to train industry specialists.

"We do not believe it is their responsibility to train people in the specialist techniques used in the games industry," he states.

"We prefer to recruit bright, well-rounded problem solvers with good coding skills. It is our job to train them in the specialist field of games development."

He goes on to explain, though, that with the help of local organisations such as Games Eden, the business network for the games industry in Cambridge, the studio is working with universities to design courses with the right kind of training.

"We are working with the universities to design the courses and work experience necessary to produce appropriate and production ready talent for the games industry," he explains.

"We are of course not totally happy with where we are currently but it is going in the right direction and will continue to improve as all the Games Eden member companies put more time and resource into developing our links with academia."

Games Eden chair Cooke says that through its work and the backing of local studios, the Cambridge University Computer Lab and Engineering department are increasingly open to the advances of the local industry, but warns that "prising the doors open further still requires work".

A BRIGHT FUTURE

Despite the lack of game-specific related courses in the area and the various challenges facing Cambridge and the global industry, local studios are extremely positive about the future of the resilient town.

"There are certainly challenges ahead, but that is nothing new," says Shepherd. "The industry has grown locally through some pretty tough times so I see no reason why it cannot continue to do so."

Ninja Theory's Ball concludes: "The industry will continue to increase in Cambridge because, simply put, it's a great place to develop games. There are already many successful developers in the area that work on very disparate projects. Whatever a developer is looking for, good opportunities exist here."

It seems clear then, if local studios continue to take risks and innovate with new IP, content and technology, for which the town is famous for, a bright future lies ahead for this booming development hub, and one the rest of the UK would do well to learn from.

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Mastering development

Already a key UK institution for industry education, **Craig Chapple** asks how Abertay University's professional masters in games development is helping create the stars of tomorrow

Abertay course lecturer Ken Fee believes the aspects of experience and team ethic make the Masters program ideal for prospective developers

THE UNIVERSITY of Abertay is renowned around the world for offering some of the top games programming and development courses in the world.

To further improve upon its standing and continue to equip students with the fundamental skills they need to be a success in a competitive industry, Abertay runs a Professional Masters in games development.

Launched in 2009, the course takes on 40 students every year, and aims to provide pupils with practical experience of game development by tasking them with creating three titles during their time on the degree.

This emphasis on hands-on experience was a key reason why the course was started, as course lecturer and former DMA developer Ken Fee states.

"The whole professional element of the title comes from the fact that we're looking at your professional practice rather than what other courses may look at," says Fee.

"You're assessed on your ability to work as part of a team, your effective skill level, your ability to take feedback and to communicate these sort of things."

WORKING TOGETHER

The aspect of teamwork is another important facet of the course, as Fee says too many prospective students can be very skilled programmers or artists, but have never worked with professionals from other disciplines.

He explains: "What we've seen in the past is that if you get someone from an art college, for instance, you might be really good at art, but you've probably only ever worked with artists, so you've most likely never been asked to do something in a game or put anything in a game engine."

Over the course of the three semesters the program is split into, the scale of the projects ramp up, with larger teams gradually formed, with each one representing a different development model.

The first semester often involves two or three man teams working on a game that can be uploaded to a platform such as iOS. During the second term students are tasked with pitching a game as if they were looking for funding, whilst in the final months large 15 member teams are formed. Here the pupils develop titles on an idea created by the course tutors and they must work together and make it.

Fee says this idea of development experience is also a key component on the program, with the course cramming in as much practical work as possible to give students more experience than they may have received from paid work.

"The original idea was to give you more experience in a year than you could get in the industry in a year," he explains.

"That's easier to do than it might sound, because the chance of completing three games in a year in the industry is pretty slim, particularly if you are at a bigger studio when it might take a few years to complete just the one title."

A ROUNDED EDUCATION

Fee says that the course's students are also encouraged to take up optional modules, such as product management, design, audio and business. He states that learning business skills in particular can be especially important, as even if students don't become experts in this area themselves, it can be vital to have an awareness of what it takes to bring a game to market.

> ***"We want to get the students showing what they can do in a more detailed way. We don't want them to be glorified amateurs."***
>
> Ken Fee, Abertay University

He sums up: "One of the things we're trying to push is we're not a production house churning out people to go into any particular big company; we're trying to just make you very skilled postgraduates who can go and work anywhere."

He adds that a full education in games development is given, as they want students to leave with a good grasp of the process, rather than the simplified methods brought about by game engines such as Unity and CryEngine.

"The problem is we want to get the students showing what they can do in a more detailed way. We don't want them to be glorified amateurs.

"Whilst Unity is a brilliant package, it's almost too good, and we want programmers to show they can actually do it, and not just edit stuff. Last year we looked at Unity and this year we used Marmalade and occasionally things like Flash and all encompassing packages like UDK, but we try and avoid that if we can because its almost a bit too easy."

Fee claims that due to the team focus and high work ethic process of the course, all its students have found careers and success in the industry and related sectors, not just in the bustling local industry that supports the course, but around the world.

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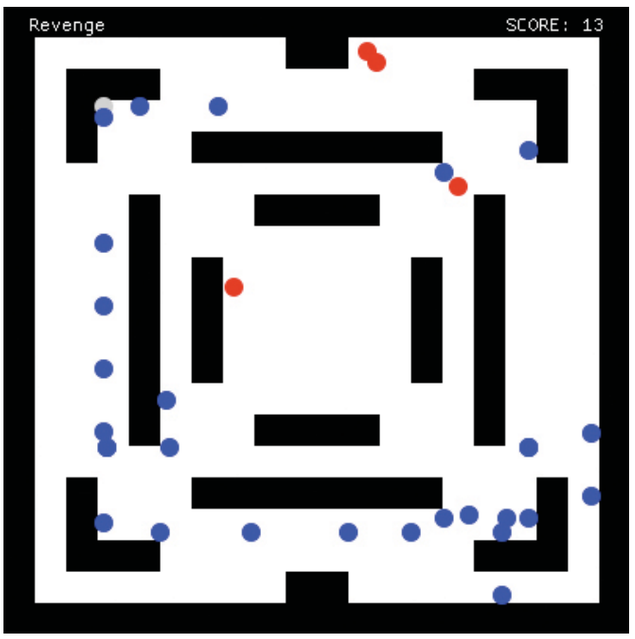
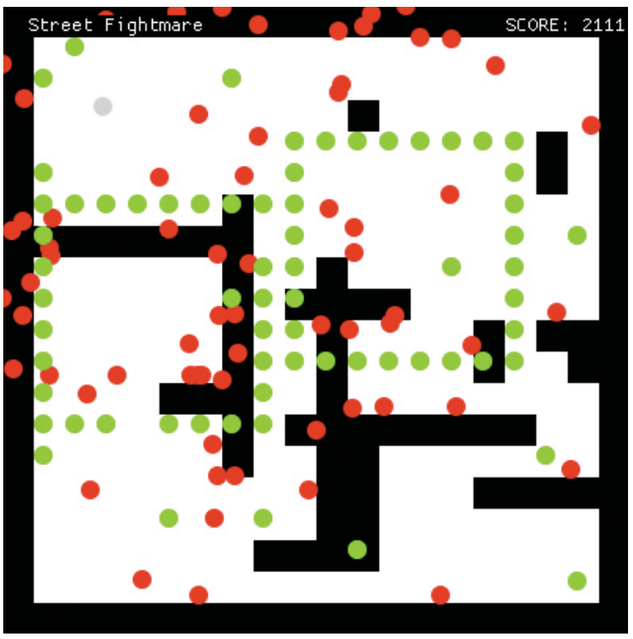
Hello Game World

Not content with just handling pathfinding, AI systems are now designing their own games. **Douglas Heaven** looks at a trend that could see the dev sector undergo its own industrial revolution. Could machines really take creativity from the hands of us mere humans?

Mike Cook, creator of AI game designer Angelina, says the technology behind it acts as a good method of exploring new ideas through evaluating play patterns. Right: Angelina-made titles Revenge and Street Fightmare





ANGELINA is a remarkable games designer. At only a year old, she's designed several arcade-style games, a handful of platformers, and is ready to tackle point-and-click adventures.

She's also not human. Halfway through a chat over coffee in a university cafeteria, Mike Cook – gamer, computer scientist, and Angelina's creator – stops himself. "I have to avoid calling it 'she' and 'her'", he admits. "Slightly unhealthy, but there you go."

Angelina is an AI system developed as an experiment in automated game design, part of a vision in which AI is not simply a source of increasingly sophisticated NPC behaviour, but also has a hand in designing games.

"Almost everywhere has a bit of procedural content generation, whether it's narratives, music, whatever", says Cook. "And all of that is backed up with what we would call AI."

Cook is part of Imperial College London's Computational Creativity research group, which, as he puts it: "investigates processes we call creative when we see humans do them and tries to simulate them in AI".

THE PROCEDURAL GENERATION GAME

In the past, members of the group have collaborated with studios such as Introversion on content generation and Rebellion on automated assessment of player experience, whilst another of its members is also an award-winning boardgame designer.

"But higher-level stuff had never really been tackled before", claims Cook. "We can already procedurally generate levels, rule-sets and behaviours – what would happen if we just put them next to each other?"

Angelina's novelty is in the way it brings together existing procedural generation techniques and produces something bigger than the sum of their parts. This creates not just a layout or a game mechanic in isolation, but integrates both into a playable whole where layout and mechanic must work together.

> ***"Angelina simulates playing the games it produces in a number of ways, based on varying levels of risk-taking in human players."***
>
> Mike Cook, Angelina

Cook is as careful with his terminology as he is with his pronouns. "The word 'design' might be too strong a word to use," he acknowledges. "Some people aren't too sure of the word 'designer'. At the moment it's definitely more compositional, bringing together ideas, but in the future that word 'design' will come in more prominently".

The analogy he gives is of an AI development studio where artist and designer collaborate on ideas. "At the moment there isn't much of that collaboration. That notion of working together is what's new. That's like the higher-level creative design task, that's what we want to move towards".

Angelina uses computational evolution techniques to search design spaces for playable games. Using a fairly simple design language, Cook specifies certain parameters such as layout constraints and rule-set variations – effectively defining a genre. Angelina iterates through a vast number of semi-random permutations of these, where each permutation is a potential new game.

The evolutionary aspect of the process comes in when the system selects the better candidates of each iteration – or generation – and combines them to form the seeds of the next. But in Angelina's case, there are two phases to the process. First, selecting the component game-parts – layout, mechanics – and secondly; picking a playable integration of these. Cook refers to this as 'cooperative co-evolution'.

"On the one hand, when Angelina generates a level it looks at it and says 'Does this look alright? Is there a bit of symmetry here, are there some interesting passageways?' And that's one level of evaluation. Then it puts these together to form an entire game and plays it."

"Angelina simulates playing the games it produces in a number of ways, based on varying levels of risk-taking in human players that correlate with different degrees of skill."

It asks questions like how often did the player die? And where did the player die? Are they constantly dying in this one kill-corridor where I've made it really unfair? Looking at a level in isolation will always

return the same result for the same level. But it's the wider reflection on having played it – almost like a QA department – that changes every time someone changes the rule-set. That's where the context sensitive stuff comes in."

ANGELINA'S JOLLY

The idea is that games that are too easy, too hard, or simply unplayable, get eliminated during the many iterations of test and selection. But the difficulty with this technology is that any procedural content generation system has a chance of producing duds.

"One of the things about evolution I found is that I'll think I'm more clever than the system, having told it to design things in a certain way, and it will produce something that's absolutely awful but fits my specification perfectly. It will sit there with this smug grin on its face saying 'This is what you asked for.'"

The problem of a non-zero error rate is common to all such techniques. "It would look a bit weird if there was a palm tree in the middle of this carpet right now", he says.

But a machine wouldn't necessarily think so. While the approach works wonderfully for a game like *Minecraft*, which could be said to benefit from the random oddness of its procedurally generated worlds, it is less acceptable for a game that needs a world we can believe in.

"There's an infancy element to it", Cook says. "In the future I would love to think that we would produce systems that don't have this problem". But Cook adds it might also be a matter of selective use: "Over time the best games will be the ones that learn where and when to apply procedural generation".

INDUSTRIAL REVOLUTION

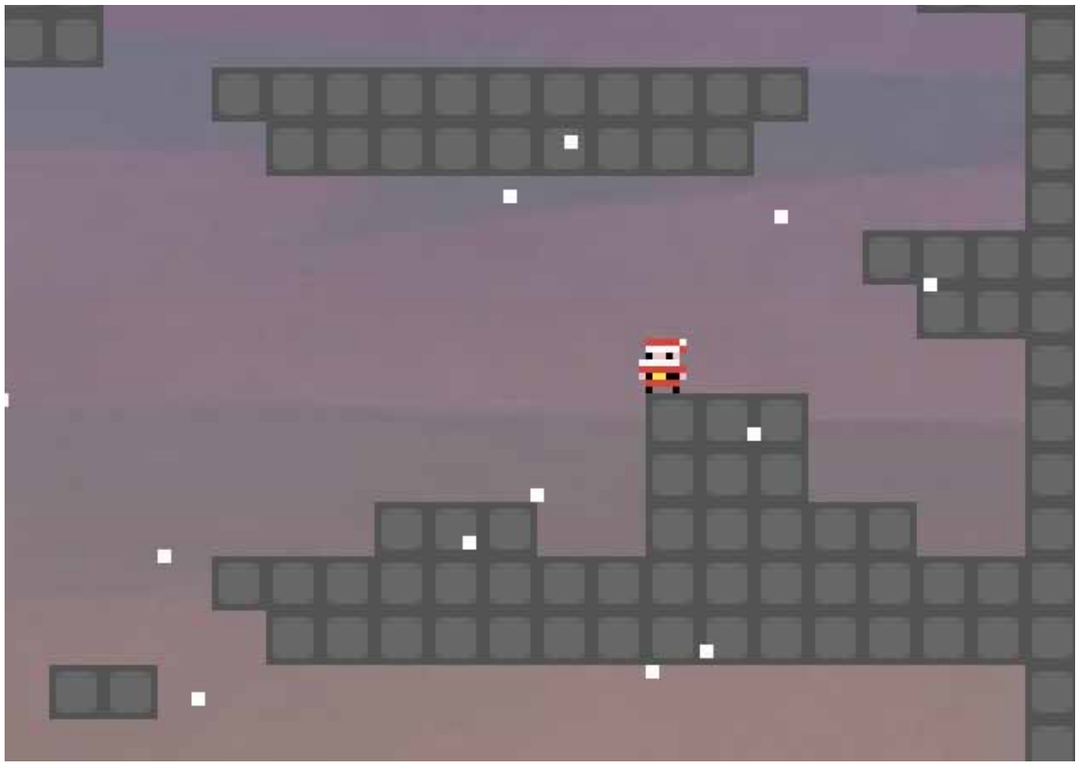
"People ask whether my research is going to cause designers to not be needed in the industry anymore", says Cook. "But I think the more procedural generation takes over from certain design tasks, the more we're going to realise what art there is in video games and the more we're going to appreciate this thing that we've never really taken much notice of before."

Indeed, as the tech industries have done in other areas, harnessing brute-force computation for creative tasks may simply be a way to focus our creative contributions.

"Artists and designers are not going anywhere. Programmers are not going anywhere. I like this idea that AI will become a collaborator in the design process, not replace it. I can't see anyone losing their jobs over this, certainly."

Instead, he imagines a collaborative dialogue: "A developer would sit down and program a design idea into Angelina and Angelina will say 'That's great, I had a couple of ideas, would you like to see them?'

Suddenly it will have changed one of your power-ups into something else and maybe it'll be terrible and you'll say 'cancel it and go back to what I had' or maybe it'll be this completely other twist on your game mechanic and you'll think 'wow, that was a brilliant idea.'"



His favourite touchstone is *Braid*, a game that understands the conventions of its genre so well it turns them on their head.

"At the moment Angelina isn't inventing new concepts; it's exploring an existing space," he explains, but wonders what kind of system could discover new concepts and hopes to find out.

Cook is evangelical about the collaborative potential between researchers and developers. Seeing parallels between his research and the experimental character of many recent indie games, he recently took his ideas to the TIGSource community.

"The indie games industry and the indie games ethic, as well as that brand, has made them amenable to the idea of research projects", he says. "That's one of the reasons I came to TIGsource. I said 'look, I'm not actually an indie game developer, but it looks like this is an indie game project, it feels like one'. I think that's why there's been such a positive reaction. People are in that mind set already."

> ***"I like this idea that AI will become a collaborator in the design process. I can't see anyone losing their jobs over this, certainly."***
>
> Mike Cook, Angelina

THE LANDSCAPE OF CHANGE

It used to be that developers used procedural generation to solve a content problem, but more and more it's because players like what it brings to a game. Citing *Minecraft* again, he notes there are "websites where they just discuss the landscape. Nothing else. They say 'look at this cliff formation I found'. People who think of gamers as these *Modern Warfare 3* junkies would be slightly weirded out by this idea that gamers are discussing geology."

Angelina has helped develop games such as Flixelvania (top) from her home at the Imperial College London's Computational Creativity Research Group (above)

Cook is understandably excited about the possibilities, but Angelina's future will be grounded in a player's mentality.

"There have been attempts to evolve balanced maps for *Starcraft*", he says. "But when they asked people if the maps were balanced, many said they weren't.

"Even though they could prove mathematically they were balanced, the players didn't feel they were. And ultimately that's all that's ever going to matter."

Douglas Heaven is a freelance writer, ex-computer scientist, and online editor for *I, Science* magazine. He has worked with robots, played in bands and currently lives with four feline automatons.

NaturalMotion product director Struan Robertson (top) and CEO Torsten Reil (above)

Breaking Free

With smartphones reaching console quality capability, **Craig Chapple** talks to NaturalMotion about the opportunities of high-end free-to-play, which the tools company-turned-developer believes could replace contemporary triple-A as the most significant, profitible school of gaming experience

ANIMATION SPECIALIST NaturalMotion, most widely known for its middleware technologies Morpheme and Euphoria, revelealed to the world in 2007 that it was to start developing its own games, and has not looked back since.

The huge success of titles such as *NFL Rivals* and *Backbreaker*, the latter of which has surpassed more than five million downloads on iOS and Android, has given the studio a serious incentive to expand its game development business and look into new ways to bring in revenue.

"We felt there was a big opportunity to commercialise our technology, not just by licencing it to people but by using it ourselves," says Reil. "We did that initially with a game called *Backbreaker* on iPhone, which ended up being a huge success for us."

GOING FREE

Having previously charged upfront for its titles, NaturalMotion Games took the decision to enter the free-to-play market with *MyHorse*, combining the monetisation model with easily accessible smartphone platforms capable of console quality visuals. The game has proven to be a huge hit since release, with more than seven million downloads, and 500,000 daily active users still playing the game.

That considered, CEO Torsten Reil is bullish about its success and the possibilities of high-end free-to-play for NaturalMotion in

> ***"I think that the UK in general is ignoring the free-to-play high-end gaming model which is going to emerge as the biggest games market of all time."***
>
> Torsten Reil, NaturalMotion

The success of NaturalMotion's free-to-play title MyHorse has inspired the company to forsee a future where free is the dominant form of game

the future. Such is its confidense in the space the studio already has six of these high-end titles in various stages of development.

"Really the biggest leap forward for us was a few months ago when we started to focus on free-to-play games," he explains.

"Our paid games ended up doing really well. We had a return on investment of five times on each game which was great, but we thought there was an even bigger opportunity to go free-to-play.

"The first game we released on those lines was *MyHorse*, again using our technology to create a really believable horse. It ended up better than we expected and is definitely the most successful game we've done so far."

So successful in fact, that Reil and product director Struan Robertson are convinced that their contemporaries in the UK industry should move in on the opportunity quickly to get ahead of the competition for what they say will be one of the biggest gaming markets ever.

"There is this huge heritage in the UK of people who know how to create really good 3D, which at the moment I think is completely under utilised and certainly on the console side," says Reil. "I think that the UK in general is ignoring the free-to-play high-end gaming model which is going to emerge as the biggest games market of all time."

YOU'VE GOT A FRIEND IN FREE

Reil explains that free-to-play 3D gaming on smartphones can provide the emotional connectivity and 'wow factor' to mass audiences that animated movies have done over the years with Pixar's *Toy Story* and *Cars*.

"If you have a 3D character that you can interact with and touch, it becomes oddly compelling," he states.

"We think of it as like popping bubble wrap; it's something that feels good to do as a mini-game. Sure some people are better than others because it is skill based, but even if you're not very good you can still enjoy it. I think that goes beyond the typical social games that you would find in 2D on iPhone, where you basically build something but there isn't really a skill element."

Robertson echoes these sentiments and adds that by creating a tactile game like *MyHorse*, NaturalMotion Games has formed a userbase that is sticking with the game for the long term, which will also keep on paying.

"It's a very dedicated userbase, the feedback through our customer support and reviews is pretty detailed and heart warming stuff," he explains. "People really do care about the horse, and I think that's been due to putting it as a realistic horse, making it 3D and putting in the effort in making the animation has really helped sell the idea of owning and looking after a horse that you wouldn't get in a 2D experience."

Reil warns however: "I do think we'll see deeper and deeper gameplay all the time anyway, but I would say is if that's at the expense of accessibility then it won't work, and that's basically the big difference."

A NEW DAWN

With the UK industry suffering in recent months, and many studios such as Realtime Worlds, Blackbox Studios, Bizarre Creations and EA Bright Light all falling by the wayside, Reil says NaturalMotion has taken it on as its responsibility to breathe new life into the country's ailing game development sector with the high-end free-to-play concept. But to do that he says developers in the country need to embrace the change, rather than debate the ethics of the pay model.

"The danger in the UK right now is that it is going to complain from the sidelines for quite some time, then realise in about 12-to-18 months that this isn't going away

NaturalMotion's Backbreaker (above) served as a significant stepping stone as the middleware company moved to embrace internal game development

and other people are making huge amounts of money. Those complaining will then try to join when its too late.

"I think this is such a big opportunity and I would also say a there's a responsibility to wake people up, because I am shocked at how conservative and cynical people are in this country about free-to-play."

Robertson adds that he is also surprised about the lack of willingness to embrace free-to-play despite its potential for success. He says *MyHorse* is the studio's biggest money making game to date, ahead of their pay up front titles like *Backbreaker*, yet so many other developers are ignoring it for the premium model.

"I was talking on a panel at a mobile event recently and I was surprised at the support of premium games from the attendees there. My surprise wasn't at the point of view on the ethics of free, but because it's clear to see that freemium games make so much more commercial sense right now," he explains. "It seems especially surprising that people who are mobile games developers are still pushing the premium side."

Reil admits that the model is not without its risks, as developing a console quality game for mobile is not cheap. With millions of apps vying for the consumer's attention, spending big on a game and hoping it will resonate with users enough for them to spend money on it repeatedly when they can play for free could make or break lesser studios.

"It is becoming risky for a small company to put all their eggs into one basket for a high-end free-to-play game, but those are going to be the games that will ultimately be successful," he says.

"If you have enough, learning by either having a game published or by actually doing it as part of a bigger company, as we're doing right now, you can de-risk those games quite significantly."

He adds that those who successfully move into the field now, will gain 'critical mass' advantages down the line, where studios can send users of games to other titles they have developed. He highlights that the half a million daily users of *MyHorse* could be advertised to to kick-start a new title quickly, alleviating some of the potential pitfalls of a free-to-play game.

"The situation that we are in right now in the UK is it's still so early that we can create these really massive companies that can make a difference and play a big role in this," he says.

Robertson adds: "There's so much dev talent in the UK already that it would seem a shame to lose it abroad."

A CULTURE OF CYNICISM

Reil says that to do this, the UK needs to pull away from its cynical ways and embrace ambition, which he believes is sorely lacking in the country's culture. But if it can get over this, he believes that the poor condition of the industry will actually act as the perfect platform for developers, who are not constrained by creating big franchises, and largely have great experience and skills in creating console quality games.

"The reason why the country is in this position is because of that skill. Ironically, because of the weakness of the market right now and since so much development has gone to other countries such as Canada, we should have greater freedom to experiment with new stuff as we don't actually have to deal with these huge games at the moment," he explains.

"We have all the ability and all the skills, the problem is that we also, certainly in the UK, have a mindset that works against that. I think even the idea of being ambitious and building a world leading company doesn't actually necessarily resonate with everyone the way it needs to."

He also claims that as well as embracing change, the UK is behind when it comes to combining creativity with analytics, believing the country is still lacking in that discipline whilst other regions such as the San Francisco entertainment hub have already moved ahead in that area.

"It's not about creating the kind of game we've been creating before. It's about combining your creativity with pretty systematic analytics," he says.

"The truth is if you don't do that, you are going to get your arse kicked by everyone else whose doing it, and the UK is still lacking that kind of discipline at the moment. This is going to cause huge issues in the market if people don't wake up to it."

CREATING A WORLD LEADER

Reil adds that the technology ecosystem that has cropped up in San Francisco can appear in the UK if the work is put in now to get in early on the latest industry trends, and this will gradually spawn further spin-offs, creating a once again healthy industry.

"It's basically founders setting up another company and another company. There's a whole network of people now who know how to do this and to improve the quality of a studio and a game every time," he says.

"And that's basically what we need to have in the UK as well. I think that requires a few bigger companies, but around that you have a whole cluster of smaller companies, some of which will grow really big themselves.

"That's really the opportunity right now that the UK has. At the moment we are having our lunch eaten by Germany for example, which has more of these companies at a much bigger scale. Now it's time for people to really use the skills that are here in this country and build ambitious companies."

> ***"It is becoming risky for a small company to put all their eggs into one basket for a high-end free-to-play game, but those are going to be the games that will ultimately be successful."***
>
> Torsten Reil, NaturalMotion

But so confident is Reil in the UK's abilities if these problems and the engrained collective cynicism in UK culture can be overcome, that he says the opportunity is not just about the survival of the UK industry, but that "it's about turning this around and becoming one of the world leaders again".

If NaturalMotion Games' growth is any indicator of what the genre could bring to the rest of the country, the future certainly looks bright for any takers. Having only officially formed in October 2010, NaturalMotion's games division now stands at 110 employees. Reil and Robertson say most of this has come in the last six months, coinciding with the company's move into high-end free-to-play development, and plans to hire plenty more staff as it expands.

The studio's rapid growth and large success with its debut high-end free-to-play title should provide food for thought for developers around the world as the industry continues to evolve at an electric pace. Will this new genre of console quality free gaming become the biggest gaming market of all time as Reil predicts, and perhaps overtake traditional triple-A titles? Watch this space, or take Reil's advice and act on it.

www.naturalmotion.com

Dundee rising

The Dundee dev hub is synonymous with the Realtime Worlds collapse, but it's time to move on, argues **Brian Baglow**, because the city's studios are now doing better than ever

THE LAST couple of years have been a little tempestuous for Dundee, with some terrible lows – goodbye Realtime Worlds – countered by a few notable highs – hello Outplay.

However, the development sector in Dundee, far from disappearing, has evolved, adapted and grown in a variety of new ways.

This flux and uncertainty has mirrored that found in much of the global games industry, where the focus has shifted from the triple-A console titles, onto the smaller multi-platform casual, social and mobile games.

Yet the overriding feeling around the city's development studios is one of optimism, confidence and excitement.

A NEW ERA

Thanks in part to the closure of some of the larger, console focused studios, many companies around Dundee have been turning their attention on the new non-dedicated platforms over the last few years.

There are already several dozen games from Dundee companies live on Apple's App Store, the Android Market and Facebook. Whilst these may not grab the headlines in the same way as major console releases, they are significant new channels for developers.

Although the viability of some platforms and business models are still being debated, developers in Dundee are already taking advantage of these to create new games.

"It feels like the flux which affected much of the industry over the last couple of years is settling down now as each company finds its focus and starts to make headway in its chosen markets," says Colin Anderson, MD of developer Denki. "We're definitely through the worst of it."

According to David Hamilton, the MD of local outfit Digital Goldfish, this focus on digital channels will only get more significant.

"The digital download market is growing exponentially, and with the extremely low barriers to entry there really are huge opportunities for smaller companies to start creating innovative games," he offers. "On iOS alone there are a number of Dundee devs who have enjoyed global success this last year."

BIG IS FRUITFUL?

Yet the suspicion remains in some quarters that Dundee has lost something with the disappearance of its larger studios.

Early in 2011 the BBC reported on the Dundee cluster, but considered the lack of a sizeable business in the area problematic. 4J Studios' Frank Arnot however, says the growing number of small devs is a distinct advantage.

> ***"The flux which affected much of the industry over the last couple of years is settling down as each company finds its focus and starts to make headway in its chosen markets."***
>
> Colin Anderson, Denki

"The presence of a 'super-developer' is an oft-used but incorrect marker for excellence," insists Arnot. "What Dundee has now is a cluster of smaller, talented development studios who pack a punch way beyond their individual size, and who collectively produce more creative and exciting work than any single super-developer ever could."

Alongside the smaller, more agile and creative studios, Dundee also has a number of other advantages which makes the city's future in gaming very bright indeed.

Abertay University is finally getting the global recognition it deserves as a pioneer of games development, and a growing number graduates are staying on to work locally.

SERIOUS STUFF

"There's so many ambitious companies here," says Serious Parody founder Dan Hinkles. "If you want to work on triple-A, licensed, social, mobile or augmented reality games, you can in Dundee. Where else could a talented developer find so much variety?"

The city council and local MP are keen supporters of the industry, providing help and support for games-related events as well as a voice within the Scottish parliament.

So what does this mean for the future of the industry? Mark Ettle, the MD of Cobra, looks on the bright side: "In 2012 I think you'll see a new wave of ultra-high quality titles come out of Dundee on a huge variety of platforms and genres. That's going to make people once again recognise Dundee as the creative hotspot that we locals know it really is."

And Richard Hare, the president of Outplay Entertainment is even more enthusiastic. "Dundee has an incredible range of developers, from young start-ups and small independent studios, through to very well established and highly respected companies which have been creating games for many years," he says.

Brian Baglow is a games consultant, events organiser and all round media expert with deep roots in Dundee's dev scene, having previously worked at Denki.

From top to bottom: Colin Anderson from Denki, Dan Hinkle of Serious Parody, Digital Goldfish's David Hamilton, Mark Ettle from Cobra and Richard Hare of Outplay

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"Unity's Android and iOS support is key for us." p58

Dropping in on Hansoft

Develop talks to Hansoft CEO Patric Palm about the latest update to the project management tool, which Just Cause developer Avalanche recently adopted, p52

Key Release: WebAnimate

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Epic Diaries: iOS

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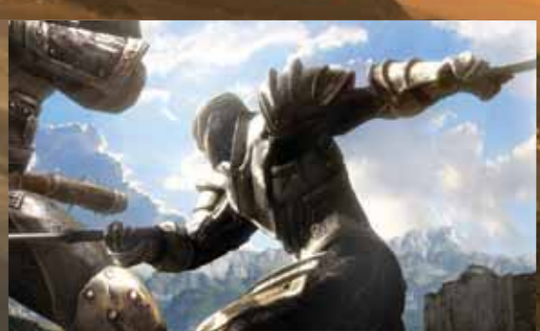


One For All

Will Freeman catches up with Hansoft CEO Patric Palm to find out why the 6.7 update to the company's popular project management tool will help studios of all sizes

HAVING SEEN a soft release immediately before the all too distant memory that was the Christmas 2011 holidays, Hansoft 6.7 is now making its way to developers worldwide.

Despite being just a dot release, it has set out to make vast improvements to teams large and small. Patric Palm, Hansoft CEO, tells us more.

Is there a theme or particular direction that drove the development of the 6.7 version of Hansoft?
Yes, the main theme was enhancing the SDK functionality to make Hansoft more tightly integrated to other systems studios use.

And what are the most significant feature updates to Hansoft 6.7?
There's the ability to make SDK functionality available through the Hansoft GUI, and the readymade full two-way real-time synchronisation with Jira.

How will those features impact the day-to-day work of studios using Hansoft?
They can, for example, connect features and tasks to unit tests. Then, when the unit tests are run, they update Hansoft workflows and set status based on unit test results.

Why is the new Jira integration in particular so significant?
Many of our customers have previously used Jira with Greenhopper. Jira is cheap and a common first step for many developers. Our readymade integration makes it very easy to migrate from Jira to Hansoft without losing any data, including attachments.

It also makes it possible to run Jira side by side with Hansoft, and then it doesn't matter which system the developer updates a task or bug in. This enables a smooth gradual transition to Hansoft to step-by-step implement the more powerful and efficient processes and practices Hansoft enables.

What kind of studio and level of game design is 6.7 primarily built for? Are you targeting the full spectrum from indie and microstudio up to triple-A teams?
Hansoft is used across the whole spectrum, from studios like Bioware to indies like Playdead – the makers of *Limbo* – to leaders in outsourcing like Virtuos. Our free educational license is becoming more and more popular among students. The SDK is primarily used by the larger studios, but I have seen really cool examples of smaller companies integrating Hansoft with their art production pipelines.

How is Hansoft having to adapt its offering to cater for the huge rise in the number of smaller and indie studios? Is that really a relevant market for Hansoft?
Absolutely, many of those smaller teams are starting to become quite significant companies. In order not to let their success slow them down, they need to think about the efficiency and management of their productions. Hansoft has the tools for them to do that; and we can also make a better job at showing how to set it up to suit their specific needs.

With 6.7 we are introducing a free 'Start-up License' for up to nine users that indies can benefit from. If they contact us now they will get the full Hansoft solution for free. Those interested can e-mail: solutions@hansoft.se.

> ***"It is not only about avoiding crunch; it is a realisation that good tools and leadership help the creative work instead of hindering it."***
>
> Patric Palm, Hansoft

How else are the updates to Hansoft's offerings a reflection of a changing industry?
The popularity of Hansoft is itself a sign of this. Teams now tend to put more importance on, not only the quality of the game, but also the process and management in making it. It is not only about avoiding crunch; it is a realisation that good tools and leadership practices help the creative work instead of hindering it.

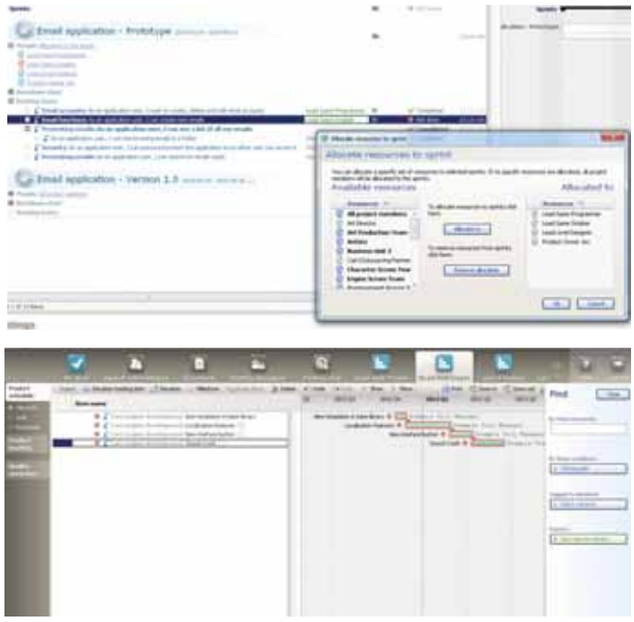
How in general do you see games development project managing and QA evolving in the future?
There are some best practices that we see spreading more and more. For example outsourcing is becoming more professionalised: to really be successful, effort needs to be put into communication and collaboration with the outsourcer, and this is where Hansoft comes in.

Another example is the practice of using the Scrum method for feature development in combination with Lean practices like Kanban for the art asset development.

We are also starting to see Hansoft being used for integrating development, QA and making operations tighter. I believe this is something we will see more of in the future.

What challenges defined the creation of Hansoft 6.7?
We didn't want the Jira integration to be a checkbox-feature. We wanted it to be something that really works in real production in all various environments. The robustness of this integration is unique in the market, but it was also quite a challenge getting it there, which in turn delayed the release date.

Finally, were there any other improvements to Hansoft in 6.7 that you feel are of particular use to your customers?
There are improvements that will make many users happy like support for multi-drop list columns, ghost resources in agile, and critical path for Gantt schedules.
www.hansoft.se



Hansoft's latest 6.7 update allows users to more easily integrate the tool with other systems studios already use

JUST CAUSE FOR OPTIMISM

The latest high profile dev studio to adopt Hansoft's project management toolbox is fellow Swedish outfit Avalanche.

Most famous for creating the *Just Cause* franchise, Avalanche recently opened the doors of its New York studio, and currently has a trio of triple-A projects underway, including the Sega published original IP *Renegade Ops*. In short, right now it is a very busy operation.

"Together with a fresh road map, Hansoft helped us structure and get an overview of our work, which has been immensely helpful. The more we use it, the more we want to use it," says Avalanche senior producer Dan Thronström of the integrated solution for project management.

"No studio wants to end up doing a death march," adds Hansoft CEO Patric Palm. "Where other tools fall short providing only flat lists of things to fix, Hansoft helps teams achieve a more proactive and structured approach. It's no silver bullet, but certainly gives the team a better shot managing their production successfully.

A silver bullet it may not be, but the latest release of Hansoft – version 6.7 – could be set to become something of a stalwart solution at ambitious, multi-project studios like Avalanche.

KEY RELEASE

Will Freeman looks at IKinema's WebAnimate middleware

WHAT IS IT? WebAnimate
COMPANY: IKinema
PRICE: Temporarily free
www.ikinema.com

IKinema CEO Alexandre Pechev says the middleware provider's WebAnimate tool provides a simpler solution to animation than many of its competitors

IKINEMA'S self titled core animation and IK technology is established, well regarded, and ideal for the high end games typical of triple-A.

But, with the increasing number of smaller studios taking a foothold in the industry, and a continuing emphasis on better equipping today's hobbyists and students for tomorrow's industry, Ikinema identified a gap in the market that it has moved to fill.

Microstudios and beginners remain starved of specifically tailored animation middleware solutions, but with WebAnimate they now have a new option to consider.

"WebAnimate is a browser-based software for animation," explains IKinema's CEO Alexandre Pechev. "It allows for the import of mo-cap data in BVH format, import of FBX models and assets, retargeting and customisation of mo-cap data, key-framing, and finally export to FBX. WebAnimate is intended to give all basic tools and functionalities that an animator or game designer might need."

MO-CAP FOR THE PEOPLE

A comprehensive package, then, and one soon to benefit from the addition of C3D support, meaning it will serve as a significant boon to the ongoing trend that has seen motion capture technology democratised across the creative industries.

"Retargeting, and in general motion capture rework, is currently considered as a high-end area," offers Pechev. "Hence the tools are not affordable by the general community. With the games industry changing, we have recognised the need for low-cost and affordable solutions that still produce high-quality output.

"WebAnimate also provides a platform for the use of the thousands of free motion capture files available out there that can be utilised, and reused by small studios and hobbyists."

Built around an uncomplicated, user-friendly pipeline, by its creator's own admission, WebAnimate is somewhat comparable to MotionBuilder. However, unlike the Autodesk technology, the markedly simpler WebAnimate only concerns itself with the core functions of animation, retargeting and customisation of motion capture data.

> ***"With the games industry changing, we have recognised the need for low-cost and affordable solutions."***
>
> Alexandre Pechev, IKinema

THE SKY'S THE LIMIT

However, WebAnimate is conceived to be anything but limited.

"WebAnimate also supports any model and is not restricted to humans. We are also extending the features to general FK-IK animation and rigging, making it a more generic animation tool, but still simpler in comparison to other products," says Pechev.

IKinema's new technology also strives to offer integration and compatibility with as many platforms and systems as possible. As well as interfacing with mo-cap data through the import of FBX and BVH files, and via the forthcoming C3D support, the team behind WebAnimate is currently working on bringing its interfaces to Vicon, Xsens, and Kinect for real-time streaming to the tool for pre-viz and live or realtime retargeting.

Building a solution offering the ability to retarget and customise animation and mo-cap as quickly and easily as possible wasn't without challenge, of course, and integrating 3D rendering technology Vision with the IKinema engine proved a defining milestone in the creation of WebAnimate.

Moving forward Pechev and his team have a further challenge. They hope to make the tool applicable to Mac, Linux and mobile platforms. It is a mammoth task that is likely to present numerous challenges, but one that will further democratise retargeting and mo-cap middleware.

FREE AND EASY

Presently the WebAnimte technology is free, and IKinema's plan is to see that some aspect of the tool will remain this way indefinitely. The current strategy for ongoing free use will see the option to save scenes and animation in the IKinema format for reuse, or allow for a certain degree of uncharged animation export use per month.

Eventually a monthly subscription or pay-per-export model is to be introduced, but for now, WebAnimate offers those at the lower echelons of the game development ecosystem an animation solution that gives them access to techniques and technology that may normally be some way out of their reach, and all without cost.

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EPIC DIARIES

Mark Rein turns his attention to the Unreal Engine 3 and UDK-made highlights currenty fascinating iOS gamers

WHEN Epic Games began licensing Unreal Engine 3, the thought of mobile hardware running such advanced technology was merely a dream.

Over the past year, the reality of this aspiration has been demonstrated over and over again. The release of the engine's best-in-class OS features, especially through the wide availability of the Unreal Development Kit, has enabled developers – including our own studio, ChAIR Entertainment – to reap the rewards of shipping high-quality games for Apple's world-class gaming platform.

In December, ChAIR Entertainment released *Infinity Blade II*, the successor to the bestselling App Store mega-hit. At the time of writing, *Infinity Blade II* is enjoying critical acclaim, with more than a dozen perfect review scores from select media. Within hours of its release, *Infinity Blade II* became the number one paid and number one grossing app in the App Store worldwide. The first *Infinity Blade* game has enjoyed long-lived success, even reappearing on the list of the top 10 grossing apps a full year after launch.

Like its hugely successful forebearer, ChAIR Entertainment's Infinity Blade II has set a benchmark for triple-A on mobile devices

THE DARK KNIGHT RETURNS

In addition to *Infinity Blade's* success, full source UE3 licensees and UDK developers have recently emerged victorious on the App Store with commercially successful games for iOS.

> ***"Even in the midst of exciting product launches such as Infinity Blade II, Epic's engineering team continues to make enhancements to the Unreal Engine."***

Fans of *Batman: Arkham City* hoping to experience its stellar visuals and gameplay on iOS need to look no further than *Arkham City Lockdown*.

Published by Warner Brothers and developed by NetherRealm, the same talented UE3 studio behind *Mortal Kombat*, *Arkham City Lockdown* is an incredible-looking brawler in which players deliver powerful combat moves via touch and swipe controls.

Phosphor recently released *The Dark Meadow*, which immediately cracked the top ten iPhone and iPad sales charts, launching as an App Store Game of the Week. Developed with UE3, *The Dark Meadow* is a gorgeous action game that combines exploration, dark humor and horror.

In addition, Uppercut Games has captured the fun of robot combat on touch-screen devices with *EPOCH*, which launched in November as Game of the Week on the App Store, as well. Media outlet SlideToPlay.com even crowned *EPOCH* its Game of the Month, saying: "Uppercut Games has delivered a stylish, original shooter, starring a nimble, lovable robot that's armed to the teeth."

Praised for its steampunk visuals and fun multiplayer options, Emotional Robots' *Warm Gun* was developed entirely with UDK and is available on the App Store.

Another gorgeous game, *Desert Zombie: Last Stand* for iOS, is quickly gaining popularity. Crystalised production manager Cam Phillips remarked of the free UE3 toolset: "UDK is an industry leading, triple-A games engine that's been made accessible to smaller development houses with a royalty-based licensing deal. No other engine on the market can compete with UDK on mobile platforms."

UE3 CONTINUES TO EVOLVE

Even in the midst of exciting product launches such as *Infinity Blade II*, Epic's engineering team continues to make strides with enhancements to the Unreal Engine.

UE3 now ships with Scaleform 4.0, and includes support for both ActionScript 2 and ActionScript 3.

The universally praised Scaleform 4.0 makes it easy for developers to create menus, UI elements and 2D graphics for modern 3D games.

UI designers can quickly become productive using familiar and mature tools such as Adobe Creative Suite.

Full source licensees have access to Scaleform 4.0 for PC, Xbox 360 and PlayStation 3, and Scaleform 4.0 features are available for PC to all UDK users as well.

In addition, Epic is bringing Scaleform 4.0 functionality to iOS, which will equip UE3 developers with powerful SWF rendering for their iPhone, iPad and iPod touch games.

UPCOMING EPIC ATTENDED EVENTS:

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Las Vegas, US
February 8th to 10th, 2012

GDC 2012
San Francisco, US
March 5th to 9th, 2012

Gadget Show Live
Birmingham, UK
April 11th to 15th, 2012

Please email: ***licensing@epicgames.com*** *for appointments.*

To discuss anything raised in this column or general licensing opportunities for Epic Games' Unreal Engine, contact: **mrein@epicgames.com**

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Canadian-born **Mark Rein** is vice president and co-founder of Epic Games based in Cary, NC. Epic's Unreal Engine 3 has won *Game Developer* magazine's Best Engine Front Line Award five times along with entry into the Hall of Fame. UE3 has won four consecutive *Develop* Industry Excellence Awards. Epic is the creator of the mega-hit *Unreal* series of games and the blockbuster *Gears of War* franchise. Follow @MarkRein on Twitter.

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UNITY FOCUS

I Am PlayR demonstrates Unity's relevance for Facebook gaming

I AM PLAYR
Developer: We R Interactive
Platform: Facebook
What is it? An online social football lifestyle simulator
www.werinteractive.com

We R Interactive executive producer Steve Didd says the Unity engine allowed the team to blend 3D graphics (left) with video footage (right)

FOOTBALLING lifestyle game *I Am PlayR* was launched on Facebook back in October, and already boasts an impressive 412,000 monthly active users. The game is growing fast, and developer We R Interactive is turning heads.

Not bad for an original IP that serves as the studio's first release.

And who has developed the engine powering this soccer-themed Facebook game, with ambitions for Android, iOS and Flash? Unity of course.

"The fact that Unity is so user friendly was one of the key reasons we chose the Unity engine for the development of *I Am PlayR*," says We R Interactive executive producer Steve Didd of betting the studio's creative vision on the engine.

"It's great that the production team are able to get hands on with building training drills and other game elements. Also, the fact that Unity supports both Android and iOS development was a key consideration in our mobile strategy for *I Am PlayR*."

THE BEAUTIFUL GAME

Unity is, of course, most commonly associated with iOS and browser games. But the active community for which the engine outfit is famed for, along with a wealth of online tutorials geared towards developing for social networks, means it is emerging as an increasingly popular tool for Facebook games development.

The We R Interactive team toiling away on *I Am PlayR* have certainly been impressed by the engine's suitability for making games on the ever-alluring social network. They have been especially awe-struck by its AB testing functionality, which has allowed the studio to optimise the install flow and user uptake that is so vital to making a Facebook game a success.

"Unity lends itself really well to fast iterative development," says Didd of Unity's other Facebook-friendly features. "It's quick and easy to tweak the scripts and then click 'play' to see the effects immediately, without having to wait for the code to compile every time. This speed is essential to *I Am PlayR*, where we are we constantly creating new game content and responding to feedback from users."

Equally, Didd and his colleagues were impressed by the prefabs that make Unity such a popular engine.

"The fact that you can utilise prefabs to store a master copy of a game object and then instantiate copies of it at will for quick set up of your scenes is great," he confirms.

> ***"Unity's speed is essential to I Am PlayR, where we are we constantly creating new game content."***
>
> Steve Didd, We R Interactive

"For *I Am PlayR* we have all the characters, standard player actions and stadiums saved as prefabs – so when it comes to creating a new match chance you don't have to start from scratch – you just play with the ready-made pieces.

"We also take great advantage of the clear and concise Unity interface, which works really well for our developers and designers. Our developers work on writing the scripts and setting up the game objects and environments, then we pass on the Unity project to our designers who can play around with the public settings to create the variations they want."

IN THE MIX

It wasn't all plain sailing for the *I Am PlayR* team. Merging the filmed sections and 3D gameplay in a way that would not jar the player from the illusion of the game world proved tough, and user testing became an essential part of balancing the blend of typically contrary visual approaches.

"When building something new and untried, it's important to get user feedback early on in the project," offers Didd. "We wanted to test that the game's on-field parts were fun and engaging, and Unity allowed us to build the 3D elements quickly to get the all important user feedback.

"Through blending live action video and first-person perspective 3D gameplay we've created amazingly realistic match experiences. And the level of personalisation we are able to deliver through leveraging the social graph data – such as signing your contract for [the game's team] River Park FC – is pretty special."

www.werinteractive.com

WHAT IS I AM PLAYR?

In developing *I Am PlayR*, London studio We R Interactive strived to create an aspirational world which allows the player to step into the studded boots of a professional footballer and explore the soccer star's tumultuous lifestyle, both on the pitch and in the glare of the public eye.

"*I Am PlayR* is the first POV online football game that lets the user play the life of a professional footballer," explains the game's executive producer Steve Didd. "It fuses live action video, interactive story-telling and first-person perspective 3D gameplay to create a truly original narrative, where the storyline is dictated by the player's decisions and actions both on and off the pitch."

Currently thriving on Facebook, expanded mobile and Flash integration is presently underway.

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HEARD ABOUT

John Broomhall talks to audio director Stefan Strandberg about his work on Battlefield 3

Battlefield 3
Developer/Publisher: DICE/Electronic Arts
Platforms: Xbox 360, PS3 & PC
www.battlefield.com

BATTLEFIELD: Bad Company 2 deservedly scooped a BAFTA for 'Use of Audio' – a popular win with practitioners and punters alike.

For audio director Stefan Strandberg, and the respected DICE audio team, *BF:BC2* had proved a solid, stable technology platform upon which to craft and finesse something rather special. The end result was sound poetry in motion.

Compare and contrast with *Battlefield 3* and the challenge of creating another hit game whilst also concurrently building a brand new game engine. Level technology ground gave way to shifting tectonic plates. Many basic audio features were missing or late whilst nascent graphics and streaming bandwidth issues demanded a serious data management re-think. Evidently it was a tough journey through heavy weather, over which a compassionate veil may be drawn.

Olof Stromqvist (left) and Stefan Strandberg (right) were part of the DICE team that won a BAFTA for 'Use of Audio' for Battlefield: Bad Company 2

CREDIT WHERE IT'S DUE

All credit then to the intrepid audio team for not disappearing into a black hole of coding and memory hassles with a weary shrug of the shoulders. Strandberg and the team kept an eye determinedly on the creative ball, keeping true sound design and aesthetic considerations to the fore, and proving again that it is, first and foremost, the power of ideas rather than technology feature-lists which lead to cohesive sound entertainment experiences. For them, close collaboration with other disciplines to create a conceptually consistent world was of the utmost importance.

"There's a lot to say about this game in terms of aesthetics and the philosophy behind it," explains Strandberg. "Our fundamental vision was to create the impression of unedited war. One thing that makes our game perceived as sounding right is that we continue to hunt down all those other disciplines that affect us. This time we worked even closer with the animators and effects people when it came to camera shake and re-coil.

"It's super-important that we collaborate and help drive analysis, so we captured a lot of explosions footage and examined it closely. Sound designers are the disciples of timing issues - they have a rhythmical sense which other disciplines don't necessarily have. We noticed that in order to fit together, animations had to be as snappy and short as our sounds in so far as they expand over time. It took several weeks to get this timing right. We noticed that in the effects artists might have twenty frames of fire, whereas for real world explosions the fire is consumed within around three frames in many cases.

"Even in massive explosions which propagate slowly when it comes to the outer rims, the actual core of the explosion happens so fast and expands so quickly that Hollywood slows them down. But we want our game to be real so we needed that snappiness and punch in the visuals. Four things work together – sound, camera shake, effects and rumble – it's really powerful and a key factor in the perception of our sound being right and having impact.

> ***"Sound designers are the disciples of timing issues - they have a rhythmical sense which other disciplines don't."***
>
> Stefan Strandberg, DICE

THE HIT FACTORY

"It's the same thing with hitting a character. We had big discussions about putting the hit detection in multiplayer on the client side because the animation system for smoke and blood effects should react instantly. I've said many times – 'if a game plays good, it has a greater potential of sounding good'. As to the sounds themselves - we are on a quest for consistency of approach with every sound fitting in a balanced way in the universe. So there are no super-designed weapon sounds.

Individually, our sounds are not that impressive, but it's our consistency in how we treat them that counts. It's the sum of the parts that is impressive, not each individual component. We build the blueprint on how they're supposed to be used, rather than focusing on making the best individual effects. Sure, you can always create a better sound but if you go down that path, you produce an 'inflation' – but we're more focused on asking 'does it fit in context, is it part of the world'?

"The combination of sounds works – kind of like record production where things combine to sound good. You carve out a space for each component – even though the drummer wants the drums loud and the bassist wants bass in your face. It's so tempting sometimes to do that individual big super-mega-sound, but actually it will push everything else over the edge.

"It's the rule-set and the thought process behind it – and really staying true to those concepts – that makes people think the game sounds good. It doesn't have to be de-codable for the average user. There's a depth there that you could argue no one would notice, but the fact it is there, and that it's followed through, proves the opposite."

John Broomhall is an independent audio director, consultant and content provider.
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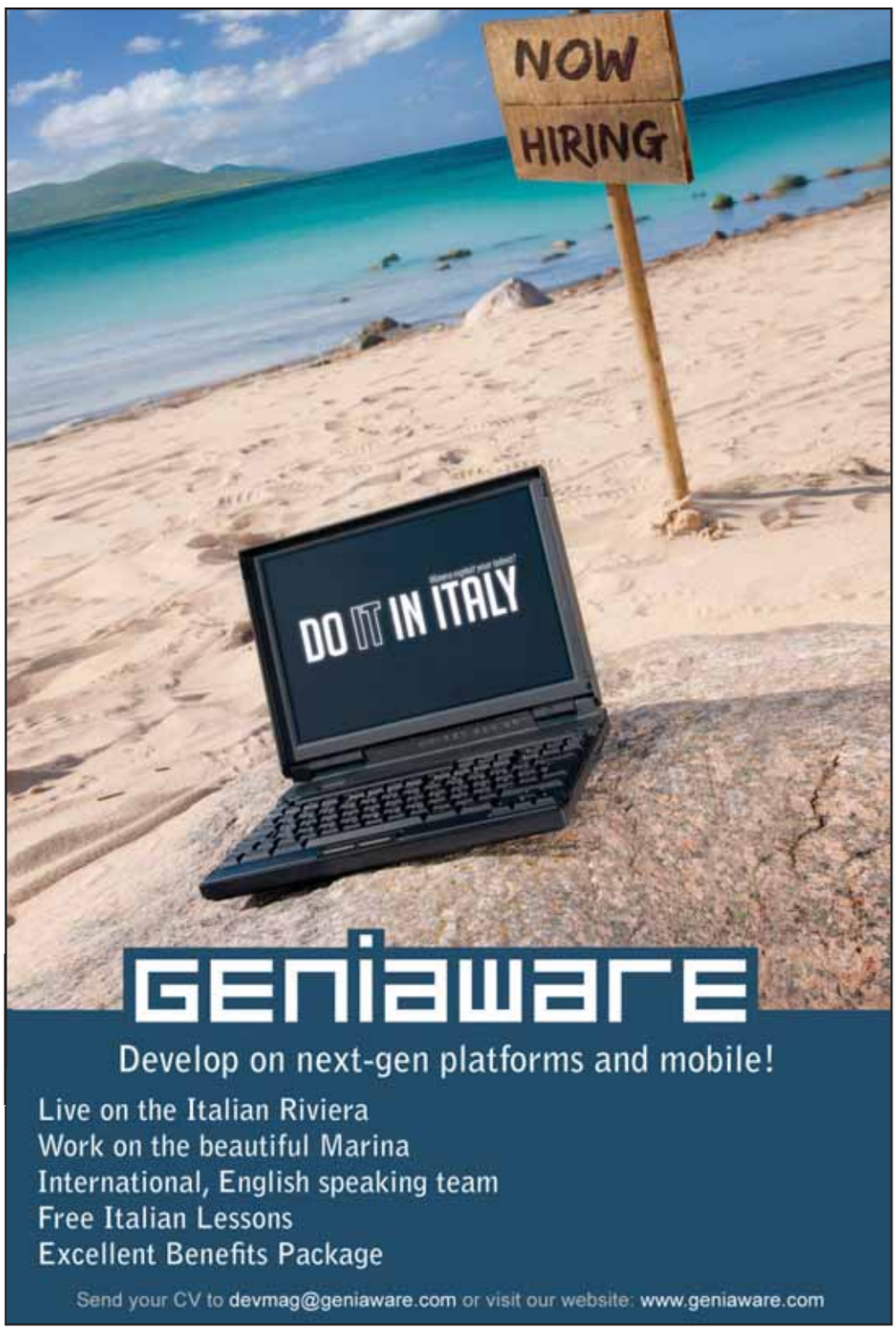


RECRUITER HOT SEAT

We quiz The Creative Assembly's **Emma Cole** for tips on how to land a job and an insight into the company's culture

What makes The Creative Assembly different from other companies?
It sounds like an obvious thing to say, but it's our people. We haven't manufactured a culture here; it's evolved by itself and it's one of great creativity and achievement. We strive for a non-corporate working environment and, while we're quite focused and structured, people have the freedom within that structure to really develop themselves and use their unique talents to make a big impact on the games we make.

What other benefits are there to working with the studio?
There are loads. Location for one – Horsham is within commuting distance of London, Brighton and Guildford, so it's really well situated. It's also a lovely town in its own right, with good amenities, and quite a lot of us have ended up moving here, so there's a really nice CA social scene in Horsham. As we're owned by Sega, we also benefit from the Sega package which offers pretty competitive benefits and includes some great perks such as gym discounts, season-tickets for parking, massages, free fruit and cereals; plus we regularly organise company social events.

Who is the best interviewee you've ever had and what did they do?
We once had a hugely skilled Iraqi animator apply. When his story unfolded during the interview, we were gobsmacked. He'd grown up in a village with literally no modern technology at all and the first time he actually used a computer was in 2005. He'd also spent time in a refugee camp in Afghanistan and had been caught in a roadside bomb-blast.

His first experience with animation came from seeing cartoons for the first time. Having grown up in such a technologically-isolated community, he was blown away – he thought 'That's what I want to do with my life'. He found employment at ICE Animations in Pakistan and was soon working 80-hour weeks learning his skills on the fly – living and breathing animation. He was – and is – a person of remarkable passion and talent.

BIO
Name: Emma Cole
Title: Recruitment and HR assistant
www.creative-assembly.co.uk

So what was the worst interview?
I had one interview where an applicant came in and was rude as soon as he walked through the door. He said: 'I'd like to know what the studio is like but I don't suppose you'd know, just being an office girl'.

What advice would you give for a successful interview?
Show us what you're made of, not what you think we want to hear. You can't manufacture a sense of passion and if you've genuinely got that, it shows. Also, do a little research and be aware of what we do. It's surprising how many people who apply don't even know what games we make. Be honest about your abilities and don't be afraid to show your past successes.

GET THAT JOB

We ask recruiters how you can score that promotion or move to a new role

THIS MONTH: POPCAP, DESIGNER

"Look at and play as many games as you can; not just ones you would naturally gravitate towards.

"Circulate your thoughts, findings and learnings, especially where you believe a game breaks new ground and/or does something particularly well – or badly – where lessons can be learnt.

"Look for any way to get or be involved in the creative process – ask to be invited to or included in brainstorm and design review sessions. Do your homework so that you are well placed to contribute in a meaningful and memorable fashion.

"If you are already in a design team then offer to support and review the design work of your peers.

"Study design trends and best practices, especially in emerging areas such as social gaming, and position yourself as the company's expert in one or more of these specific areas of game design."

David Bishop,
Senior Game Designer, PopCap

SIX-SECOND STUDIO SPOTLIGHT

- France-based studio Asobo was founded in 2002
- It has developed games such as *Wall-E*, *Toy Story 3* and *Fuel* for multiple platforms
- The studio will be celebrating its tenth anniversary this year.
- Its most successful title Ratatouille has sold more than 2.5 million units
- Currently working on Kinect title *Rush: A Disney Pixar Adventure* to be released in March
- The studio currently stands at more than 100 employees, and is looking for more senior staff to join its team

www.asobostudio.com

Since it's easier than ever for developers to self-publish, why should they instead join The Creative Assembly?
With the *Total War* series and our upcoming *Alien*-related console title, we're working on projects that are far beyond the scope and capabilities of smaller outfits. There's a tremendous amount of resources going into both our development teams, and joining us is an opportunity to help fashion world-class games that will have a significant impact. We're also a very stable studio. We work in a really collaborative way and everyone's roles are well-defined.

What area of the industry needs more investment?
Human resources. I know, that's a bit biased. But often, the recruitment experience for candidates can lack the personal touch, and just a simple email reply can make the difference between us finding or losing the right candidate.

For every applicant that we receive a CV from, we ensure we reply, even if they're not successful.

On a wider scale, I think it's important that investment in education is taken more seriously. Creating an exceptional pipeline of star graduates will invigorate UK development in the coming years, and this will rely on smart investment early on. More content makers means more content, and that's an important aspect in the future of the UK economy.

How many people is The Creative Assembly planning to hire?
We grew from 160 people to 185 last year alone. This year, we wil be hiring to well past the 200 mark.

What fields are you recruiting from?
The Creative Assembly is hiring in virtually every discipline at the moment, for both PC and console development. Lighting artists, multiplayer programmers, AI programmers, designers, audio engineers; the list is pretty big.

> ***"The Creative Assembly is hiring in virtually every discipline at the moment, for both PC and console development."***

Given the success and critical acclaim of the *Total War* series, has this made it easier or harder to recruit for the company?
Both, to be honest. We're known mostly for the *Total War* PC strategy series, which is obviously an ideal situation when you're hiring for a team that consistently releases 90 per cent plus Metacritic games. But we also have a large and fast-growing console team, which is now entering full production on our new project based on the *Alien* IP.

The game is enormously ambitious and exciting, and I want to shout about what they've achieved already from the rooftop, which is obviously hard when the game isn't yet formally announced.

It's shaping up to be an incredible experience, and I think that must be a very attractive prospect to potential CA candidates.

NEW STUDIO ALERT!

A NEW mobile studio named PlaySide has been launched by former staff of the now defunct Melbourne studio Visceral Games.

Founded by game designer Gerry Sakkas and devs Aaron Pasias and Mark Goulopoulos, the studio is to focus on bringing its triple-A skills to the mobile space.

"We are very fortunate to have a team that already knows how to develop triple-A console games," says Sakkas. "So as the mobile space grows and matures we will easily be able to adapt to any changes that come our way.
www.facebook.com/playsidestudios

MOVERS AND SHAKERS

This month: Red 5, GamesAid, Bossa, Kixeye and Wooga add to ranks with young talent and veterans

RED 5 STUDIOS ■ Crytek developer **URY ZHILINSKY** has left the *Crysis* studio to join online outfit Red 5 Studios, where he will take up the role of senior graphics programmer.

Zhilinksy has worked in the industry for over ten years, most recently as R&D manager and senior R&D graphics programmer at Crytek.

"We're still a relatively small team here at Red 5 Studios because we've been very selective when choosing 'tribe' members," said Red 5 CEO, Mark Kern.

"It's not just about talent, it's about what happens when you put together a group that shares the same commitment to quality, community, and fun.

"Ury's skill and experience make him an asset that any team would be happy to have, but it's his development philosophy that makes him a good fit for the 'tribe'."

The studio added that it is currently recruiting programmers for work on its upcoming online action game *Firefall* for PC.

GAMESAID ■ Intent Media managing director **STUART DINSEY** has been appointed as chairman of UK industry charity GamesAid.

"Having been in the games business for over 25 years, I know exactly how a lot of people feel about charity," said Dinsey.

"In reality, they want to support it – it is a good thing – but fund-raising has to be done the right way, objectives must be clearly set out and there must be complete transparency and inclusiveness at all times.

"GamesAid fits the criteria above, which is why I am happy to be chairman, but I will be firmly in the background. The GamesAid stars are its ambassadors and members – people within the business trying to make a difference in whatever way they can. The Trustees are just here to encourage, help and control where required. All fund-raising ideas and suggestions are welcome."

BOSSA ■ Social games developer Bossa Studios has appointed former Sony Computer Entertainment vice president **YOSHIFUSA HAYAMA** as creative director. He will strive to help the UK studio in its ambition to bring 3D to the social games market.

Hayama has previously worked on titles such as *Ico*, the *Final Fantasy* series and the upcoming PS3 title *The Last Guardian*, but left the company to join Bossa.

"The future of gaming is online and thanks to recent developments with Flash 11 there is no reason why a social game can no longer be as visually stunning and as compelling as the big console titles," said Hayama.

"At Bossa we have plans to bring a plethora of games to Facebook and eventually other appropriate social media channels, which include 3D elements and can be enjoyed by all age and interest groups."

KIXEYE ■ Former Zynga exec and Lionside founder **BRANDON BARBER** has joined studio Kixeye as senior VP of marketing.

Barber, who was previously VP of marketing Zynga, has also worked at Electronic Arts as senior director of global online marketing.

"In order to continue crushing our competition, we need to bring in the best talent on the planet," said Kixeye CEO Will Harbin

"Brandon fits that description. His track record of innovation, execution and entrepreneurialism will help us up our game as we develop the next generation of mind-blowing online combat games."

WOOGA ■ **GITTA BLATT** has joined German social games studio Wooga as head of human resources.

Blatt, who previously held the same role at Bigpoint, will "focus first and foremost on personnel development and the recruitment of new employees".

"Her views, her vitality and her commitment convinced me that she was the right person to guide the rapid growth that Wooga is currently experiencing," said Wooga founder Jens Begemann.

"Her ideal company culture corresponds with mine, and her experience – both with the development of a company and in the gaming industry – is unique."

The studio said it is currently hiring two new employees per week and plans to grow to 250 staff by the end of 2012.

TOOLS SPOTLIGHT

This month: **Umbra software**

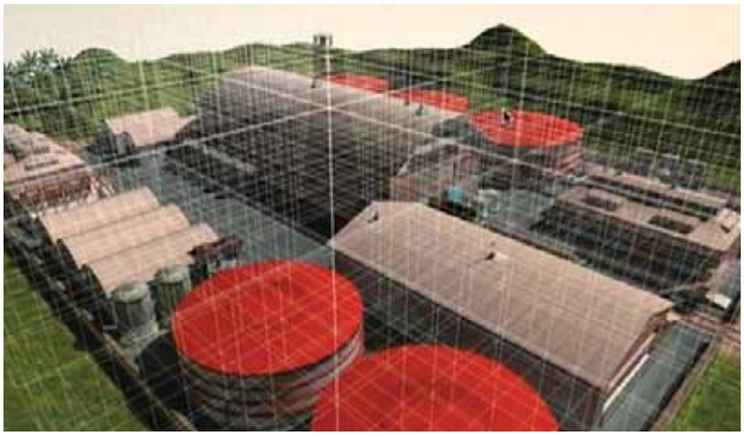
UMBRA SOFTWARE is a middleware company that specialises in solutions for extracting visibility and spatial connectivity relations from a 3D scene.

Founded in 2006 as a spin-off company from Hybrid Graphics – now owned by Nvidia – it was created after the Finnish firm shifted its focus to mobile and embedded graphics technology, leaving Umbra to continue the development of middleware for high-end 3D graphics.

The tool, which has been used for games such as *Mass Effect 2* and the *Dragon Age* series, can also perform occlusion culling for camera views, whilst data can be used for content streaming, AI and audio occlusion.

"Traditionally artists would have to do a lot of manual work for annotating the scenes with this type of information, but Umbra does this automatically and very efficiently and it works for all types of 3D worlds regardless of scale and composition method," says CTO Osto Makinen (pictured, far right).

Lead programmer Antti Hatala (pictured, right) adds: "Removing the need for manual tagging enables more dynamic artist workflows, such as prototyping in the real runtime environment and iterative tuning of scenes, even late in production."



They add that the heart of the tool is a method of generating a portals-and-cells graph from arbitrary input geometry by a process of adaptive voxelisation and connectivity based simplification.

The middleware outfit has just released the latest version of the tool, Umbra 3.1, which its creators say will play a part in future projects by companies such as Bungie and Sony Online Entertainment.

Makinen adds: "On top of those, there's a few triple-A studios that we cannot announce yet that use Umbra's technology who traditionally build all of their own tech.

"I think that's what's been most gratifying for us, being able to convince developers who have super strong technical talent to use our solution."

Umbra 3.1 includes new features such as incremental bake, which the company claims enables changes to be made to a scene so that only the affected areas visibility information needs to be re-computed.

In future the developers say they are looking to introduce tools that give artists more freedom in content design, and have already begun focusing on making 3D content creation easier, in addition to decreasing the time it takes to render.

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Codeplay 0131 466 0503 www.codeplay.com

SERVICES SPOTLIGHT

This month: **Side**

LONDON-BASED company Side specialises in the casting, directing and recording of actors, in both a voice and performance capture capacity.

The service provider has worked on a variety of games such as *Star Wars: The Old Republic*, as well as casting, directing and recording a new set of characters for Media Molecule's PS3 title *Little BigPlanet 2*.

It has also worked on games such as *The Witcher 2: Assassins of Kings*, in which Side carried out full voice production, delivering over 20,000 lines of dialogue, whilst the company was also responsible for providing over 80 actors for Lionhead Studio's *Fable III*.

Side co-founder and creative director Andy Emery (pictured, right) says the studio's success is due to the studio's "high level of skill and experience in this specialist area of game production".

He adds that successfully matching the right actors on its roster with particular roles depends on the character brief the service provider receives from a client. Whether the voice needs to be gritty, real or deep, or when considering the basics of physicality, age and accent, he says Side can provide the right actor for a studio's needs.

"We're looking for a truth to the performance, whether it be as a comedy cat or a war-bitten soldier," says Emery.

"We hold auditions with professional directors who can really push the actors to the performance required. For performance capture projects we have fully-filmed auditions which allow us to capture the physicality of an actor as well as their vocal abilities."

As well as a rugged process of trying to hire quality actors for its projects, Side also provides directors, which Emery takes very seriously, as a director can help bring to life an actor's performance.

"Experienced, professional directors can bring much to recording and performance capture sessions – namely a special language with the actors and a focus on character and story," he explains.

"They are going to make sure the characters' motivations and actions make sense and are coming across to serve the game."

As for the future, Emery says Side is continuing to grow its team of production managers, sound engineers, and casting and performance directors.

In March the company will be opening a new production and studio space at its central London base, where Emery reveals that the studio will be working on a number of triple-A projects.

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TRAINING SPOTLIGHT

This month: **The Gnomon Library**

THE GNOMON WORKSHOP provides a different kind of schooling for both professional and aspiring game artists.

In essence it offers production-focused training in the form of DVDs and digitally downloadable tutorials. Users can also access the new subscription system, which provides access to its entire library.

"We have tutorials for just about any artist at any level," says Gnomon Workshop managing director Eric Miller.

"We offer everything from foundational drawing titles to advanced animation and production-based visual effects titles. We also offer gaming-specific titles covering everything from concept design, art direction and modelling to texturing, animation and game engine integration."

Miller explains that studying through the workshop means students can learn at their own pace, studying what they want, when they want, with no classes to attend.

"They can truly choose between following along, step-by-step, with one of many technical titles we offer, or they can choose to just watch one of our amazing instructors at work simply to gain inspiration and learn a few awesome tricks," he says.

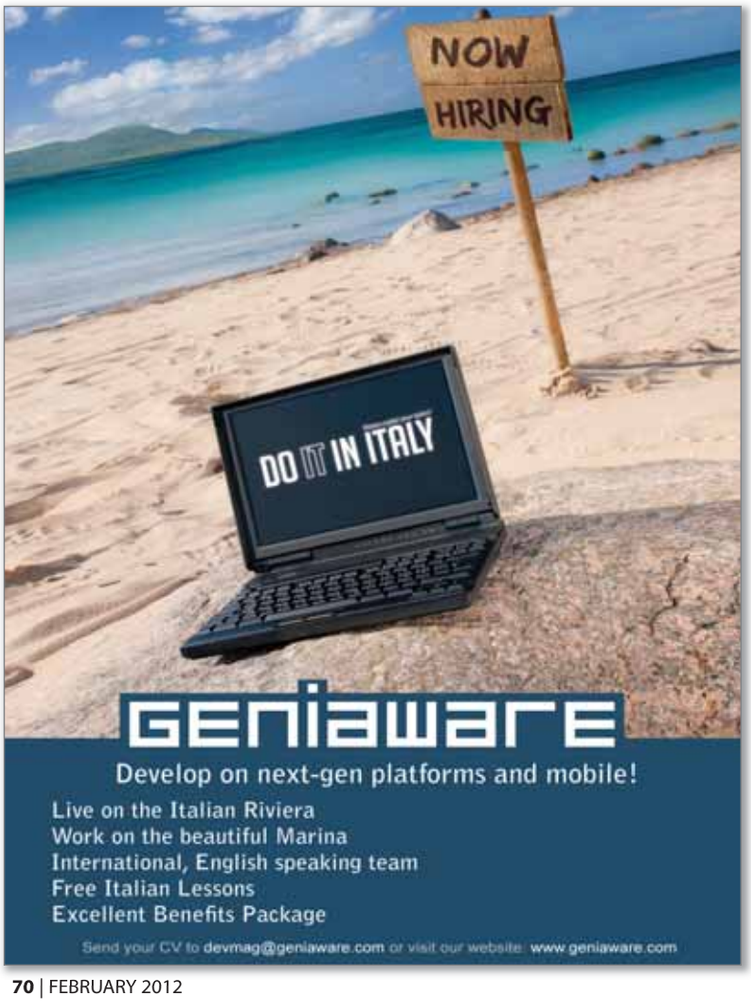
He adds that the training service relies on industry professionals, rather than a staff of resident artists, to generate content.

> ***"We offer titles covering everything from art direction and modelling to texturing and animation ."***
>
> Eric Miller, Gnomon

"It all comes from artists who use these tools and techniques every day," says Miller.

"They are the experts. They are on the front lines helping to not only develop many of the tools used in the industry today, but developing intelligent ways to use them in production. That's what it is all about."

Geniaware www.geniaware.com



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Miller claims that The Gnomon Workshop has a number of relationships in both the game and film industries, with companies using its products in their own training and artist development departments.

"Our most recent update to the platform included a new 'Studio Edition' of the product, providing studios with a robust yet flexible management and licensing system," he states.

"And since all of our instructors are industry professionals who come from many different studios, they are able to share their working expertise with aspiring artists as well as other industry pros."

Over the next few years, Miller says the Gnomon Workshop plans to continue producing training titles, search out 'amazing' artists and build more relationships with studio creatives and training departments in the industry to guarantee it can carry on delivering easily accessible education to apiring developers and seasoned professionals alike.

"As we continue to add training content to our library, we are also focused on expanding our range of titles. We are, and have always been, focused on providing the best professional training content in the industry," he explains.

"We are also mindful that a strong set of foundational skills is required for any production artist. The Gnomon Workshop will remain focused on providing the widest range of lessons from the industry's very best artists and continue to build on our already awesome library of content."

Managing director Eric Miller says The Gnomon Workshop's library means artists of any level can learn what they want, when they want

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PhD and BSc study also available.
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CODA

A sideways look at the games industry

THE INDUSTRY IN 140 CHARACTERS

A month in tweets by the industry elite

@mike_acton
Why are credits in games still so non-interactive? I want twitter and linkedin links and profiles of individuals! And comments. :)
(Mike Acton, Insomniac)
Saturday, December 31st

@ian_livingstone
Absolutely delighted for all involved in Next Gen Skills campaign. What a day!
(Ian Livingstone, Eidos)
Wednesday, January 11th

@cliffski
Looks like being in a sale + humble bundle has encouraged lots of new piracy links. Great plan guys. YOU are the reason SOPA exists.
(Cliff Harris, Positech)
Sunday, January 1st

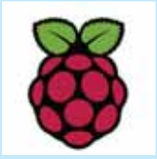
@KieranO
@ian_livingstone Well done! Just make sure they teach useful programming languages like Python instead of out-of-date languages like unis do
(Kieran O'Neill, Playfire)
Wednesday, January 11th

@benfurneaux
Kazuo Hirai to be named President of Sony, Howard Stringer to remain CEO. Can anyone explain to me the difference between these roles?
(Ben Rex Furneaux, Turbulenz)
Friday, January 6th

@milessi
Well done to **@uk_ie, @ian_livingstone, @percyblakeney63, @davidbraben** & all who have been lobbying for [ICT education] change
(Miles Jacobson, Sports Interactive)
Wednesday, January 11th

@CharlieBeatnik
Wow. BigBig and Monumental Games go on the same day. Gutted for all my friends involved. Best of luck guys.
(Andrew Dennison, Rare)
Tuesday, January 10th

@BinaryTweedDeej
HA! Russian pirates have translated *Clover: A Curious Tale* and started distributing it!
(DeeJay, Binary Tweed)
Tuesday, January 10th



@Raspberry_Pi
We've started manufacture - see raspberrypi.org for details!
(The Raspberry Pi team)
Tuesday, January 10th

@megganpez
I'm ringing the "no new stuff" bell for GDC. Please, no more 'great ideas' or 'awesome partnerships'. I'm done. The Donger need food.
(Meggan Scavio, GDC organiser)
Wednesday, January 11th

AN OPEN MIND

UK EDUCATION SECRETARY MICHAEL GOVE

based on his speech on shaking up computer science in schools

Telling the BETT education show attendees that he owes a games industry legend some thanks:
"Last year's superb Livingstone-Hope Review – for which I would like to thank both authors – said that the slump in the UK's video games development sector is partly the result of a lack of suitably-qualified graduates."

Telling the BETT crowd why we need to look back to move forward:
"Britain should never forget that one of our great heroes, Alan Turing, laid the foundation stones on which all modern computing rests.

Boasting to the BETT conference about how huge his pockets are: "A desktop computer became a laptop computer. My pockets were filled with huge mobile phones, then smaller mobile phones, a Blackberry, and now an e-reader and iPad."

IT FIGURES : FALLOUT ONLINE FALLS AWAY

On **January 9th 2012** it emerged that cash-strapped publisher Interplay has voluntarily cancelled development of the potentially lucrative *Fallout* MMO in return for a **$2 million** payout from Bethesda. The move effectively cancels the *Fallout* MMO, which had been in development at Bulgarian studio Masthead. On **December 29th**, Masthead settled in court with Bethesda and conceded it has no legal right to use any *Fallout* intellectual property. It had already come to light that Interplay had been operating in financial disarray. In **2011** the publisher's cash balance had fallen to **$3,000** by the turn of the year, with a working capital deficit nearly at **$3 million**. Bethesda acquired *Fallout* intellectual property rights from Interplay in **April 2007**. The group said it "conditionally" licensed back to Interplay certain trademark rights to make a *Fallout* MMO, provided Interplay secured **$30 million** in financing for the MMO and commenced full scale development of the game by **April 2009**.

THE EGO TRIP

We ask some of the finest game development talent a series of questions about the toughest subject of all – their own work

THIS MONTH: Paul Gower
MOST FAMOUS FOR:
Founding Jagex with brother Paul
ANSWERING QUESTIONS ON:
RuneScape

Can you recall the exact date the first public Beta of the very first version of RuneScape went public?
Definitely. I remember that well. It was January 4th 2004. I remember it very clearly. Every *RuneScape* anniversary reminds me of that one. That date has become the marker of the achievement of how long *RuneScape* has been going. **CORRECT**

What was the actual name, rather than the commonly known initials, of the author of the RuneScape novels such as Legacy of Blood?
That was Tom Church. He's better known as T.S. Church. It took a while for people to know. **CORRECT**

What exactly is Fist of Guthix, and what does it involve?
Fist of Guthix is one of our mini-games within *RuneScape*. It's a PVP kind of game that assigned players combatant rivals and asked them to take it in turns to hunt one another down. **CORRECT**

What was the codename of the recently developed anti-bot system introduced to improve RuneScape?
That was the something we called the ClusterFlutterer. **CORRECT**

Could you name the RuneScape world's three most common types of mod?
That one is easy. It's Jagex Mods, who are staff, the Player Mods that are in-game volunteers, and the Forum Mods. **CORRECT**

To the nearest ten, how many English servers currently serve RuneScape?
Oh dear. This one will catch me out. I really don't know. This is tricky as they keep changing. Maybe 170. I'll say 172.
INCORRECT
(*At the time of the quiz in early January, the English servers numbered 139)*

LEADERBOARD

1. Charles Cecil (5/6)
1. Sean Murray (5/6)
1. Paul Gower (5/6)
4. Martin Hollis (4/6)

Poor Martin Hollis. He's the only one without a 5/6 score. And Charles Cecil now has two developers hogging the top-spot with him.

develop FORWARD PLANNER

MARCH 2012

Game Engines
A detailed look at the evolution and diversification of the game engine, with analysis of the key trends and technologies from the sector's most experienced professionals

Outsourcing
A new analysis of the once-contentious topic of farming out and offshoring non-essential asset creation and business functions

Regional Focus: Middle East
A focus on one of the emerging development markets and what it could mean for the rest of the industry

Event:
GDC – March 5th to March 9th

APRIL 2012

QA and Localisation
We take an in-depth look at this essential element of the games development process

BUILD Special Feature: HTML5
A guide to how this important technology is reshaping games on the web – and the key companies helping you take advantage of it

Regional Focus: China
An examination of the rising sector in the world's fastest growing economy, and the influence it is having globally

MAY 2012

With Develop 100 insertion

Audio Special
A detailed summary of music and audio for the games sector, from in-house teams through to outsourcers

BUILD Special Feature: QA
How the teams stamp out bugs and ensure you pass certification work – and how you can get the most out of their services

Regional Focus: Australia
A look at how the troubled sector has coped with recent closures and how it will progress in the future

Events:
Develop Quiz – May 16th
Nordic Game – May 23rd to May 25th

JUNE 2012

BUILD Special Feature: AI & Character Behaviour
An update on all that is new in the worlds of AI tools and making characters navigate game worlds more realistically

Regional Focus: North East UK
A look at the pros and cons of one of the UK's increasingly significant games development hubs

Events:
E3 2012 – June 5th to June 7th
UBIQ – June 18th to June 19th

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THE FAQ PAGE: MEGGAN SCAVIO

Develop grills respected figures from the global games industry

General manager for GDC events Meggan Scavio would like to see individual developers earn more recognition for their work on games

Who are you and what do you do?
I'm the general manger of the Game Developers Conference events. There are four GDC's annually: San Francisco; Europe; China and GDC Online.

What are you working on right now?
The mother of all GDC's, the San Francisco event, is first and foremost on my plate right now. I am in the middle of working on the Classic Game Postmortems. Last year, as part of our 25th edition celebration, we introduced 11 postmortems that focused on all of the genre defining video games from our past.

Hearing from the developers of the games that inspired the current generation of talent proved an enormous hit. We're going to make them a regular feature of GDC moving forward, though on a much smaller scale. 2012 will see three Classic Game Postmortems and right now I'm narrowing down who to invite to them. I currently have a list of 73 titles and I don't know where to start with it.

What was the first video game industry project that you ever worked on?
My first ever GDC was in 2000 in San Jose. I was responsible for working with the two gentlemen that run our Conference Associate (CA) program. The CA's are our volunteers. They work the event for a certain number of hours in exchange for complimentary passes. It's a great deal for college students or others who can't quite manage a full pass but don't want to miss the event. Back in 2000, we had about 150 CA's working GDC. Last year we had 400. Some have gone on to become pretty well-known, such as Jane McGonigal and Kim Swift. Next time you see a CA at a GDC, be nice to them. They might be hiring you someday.

> ***"I think it's amazing how willing this industry is to adapt to change. I've been watching developers easily shuffle between mediums, elevating them each time."***

What was the first video game you ever played, and did you enjoy it?
Oh gosh, my first console was an Atari 2600. I remember playing a lot of *Breakout*. Like, a lot. I was pretty good at that one. But I played everything I could get my hands on: *Asteroids*, *Hangman*, *Pole Position*, *Yar's Revenge*, *Frogger*. I could go on. That was a great system. So many wrist cramps.

What was the most recent video game you ever played, and did you enjoy it?
GDC and the holidays have kept me pretty busy and away from my consoles – although I have *Batman: Arkam City* and *Skyward Sword* sitting there glaring at me – so thank the stars for my iPhone. Despite being totally obsessed earlier in the year with *Dungeon Raid*, the inability to level up made me move on to *Jetpack Joyride,* my new go-to iPhone game. That and I'm still adding floors to my *Tiny Tower*. I have 126 at the moment.

What is your favourite game ever, and for what reason?
Easy. *Zelda*. *The Legend of Zelda* to be exact. After my Atari system, my parents purchased a NES, and it was over for me. I played so many games on the NES but *Zelda* was the first one I finished and wanted to immediately play again. I still have my gold cartridge. Confession: I only managed to kill the final dungeon boss because someone my little sister went to school with told her what to do. Otherwise, I earned every blister.

How many hours a week do you spend playing video games?
Not as many as I'd like. Probably just a couple. I need a vacation.

What area of the industry is in need of more 'investment'?
I'll interpret 'investment' as recognition and reward. I'd like to see more recognition placed on the individual developers involved in each game. While I completely understand that games are made by the team, there are leaders. Why not showcase them?

What do you enjoy about the video games industry today?
I think it's amazing how willing this industry is to adapt to change, and how fast it can do so. The last few years, I've been watching developers easily shuffle between triple-A/indie/social and smartphone, elevating the medium each time.

What disappoints you about the video games industry today?
That in some areas video games are still considered 'toys'. But there is the technology, the art, the writing, the storytelling. I played *Heavy Rain* in one sitting because I had to find how it ended. I was more immersed in that game than any novel I was reading at the time.

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